

NSP Cleared Suspect

... No Alert

CALLSIGN

International call sign.

CATEGORY

Category code for the track:

AIR Aircraft

NAV Naval

SUB Submarine

MER Merchant

FSH Fishing Vessel

LND Land Unit

UNK Unknown

CLASS

Ship class or aircraft model/class designator.

CMD XREF

Two-character source cross-reference code for the Command that originated the track report.

COMMAND

Specific reporting command.

COMMS XREF

Communications cross-reference code for a particular communications interface.

ELNOT

An acronym for ELINT Notation, the electronic emitter code assigned to a radar by the detecting sensor.

This five digit field begins with an alpha character, followed by three numbers, ending with another alpha character.

EMITTER

Radar name (for example, RAY1500, SPN-43, HEADNET).

FLAG

Two-character country code representing the nationality of the track.

FTN

Force Over-The-Horizon Track Coordinator number assigned by FOTC, if in FOTC mode.

HULL NO

A 1–6 character alphanumeric entry assigned to the ship and shown on the ship's hull (e.g., A35, D51).

INTEL PIF

Intel Pseudo Identification Feature (PIF) number.

LAST REPORT

Track's last reported position, found by entering a DTG or DTG range (ddhhmmZ MON YR).

Use the following format to enter DTG values for LAST REPORT and LAST UPDATE:

{DTG}—for tracks with that exact DTG.

{DTG}>—for tracks with the given DTG or a DTG later than that given.

<{DTG}—for tracks with a DTG earlier than the given DTG.

{DTG}^{DTG}—for tracks with a DTG between those given.

@—designates the current system time. Combinations of @+{min} and @-{min} indicate a current system time plus or minus the given number of minutes.

LAST UPDATE

Last update of track in Tdbm. Found by entering a DTG or DTG range with a given time range. Update includes all updated track information.

LTN

System-assigned local track number. Every new track is automatically assigned a unique number for system identification.

PRF

Pulse repetition frequency (PRF), measured in pulses per second. (This is the reciprocal of the PRI value.)

PRI

Pulse repetition interval for the transmission (measured in pulses per second).

PW

Pulse width (measured in microseconds).

RF

Radio frequency (measured in microseconds).

RTN

Received track number.

SCAN RATE

Scan rate (measured in seconds per rotation).

SCAN TYPE

Scan type code. For example: CIRC (circular)

SCONUM

Ship Control Number. Assigned by NOIC (Naval Ocean Information Center); sometimes referred to as the NOIC ID or NOSICID.

SENSOR

Sensor type used to pick up the track at its last reported position.

SOURCE

Two-letter OTCIXS station source code (for example, AM=America). Letters are taken from the Source XREF Table, which can be viewed from the SOURCE XREF TABLE option (MISC menu).

SPD

Speed of the track.

THREAT

Threat status code for the track:

FRI Friendly

HOS Hostile

NEU Neutral

UAF Unknown Assumed Friendly

UAE Unknown Assumed Enemy

UEV Unknown Evaluated

UNK Unknown

PND Pending

TRADEMARK

Case or designation number used to identify an unknown or hostile submarine.

TYPE

Code for ship type (for example, CGN).

11.19 COMPARE

Use the COMPARE option to compare tracks and ambiguities and to merge them when appropriate; that is, when it is determined that they represent the same track.

Figure 11.19-1 shows a comparison of merge and associate and the results of those actions. A detailed explanation of the Merge and Associate functions can be found in the introduction to the *TRACKS* chapter.

MERGE / ASSOCIATE	RESULT
<i>Merge</i> tracks of the same type:	Only 1 track exists in track database.
	Merges cannot be separated later.
<i>Associate</i> track records from differing sources:	Individual tracks in association exist as separate entities in track database.
	Displays as 1 track (the Parent track) on tactical display.
	Associations can be broken later.
	Track hierarchy created: <ul style="list-style-type: none"> • Parent = One Platform or Unit Track. • Children = Other track types (Link, ELINT, Acoustic, etc.). • A single Parent can have multiple child tracks associated with it.

Figure 11.19-1 Track Merge/Association Specifics

Compare, Merge, and Associate:

- A track can be merged into another track of the same type (for example, if both are Unit tracks), resulting in one track in the database.
 - Exception: Ownship cannot be merged into another track.
 - Compare track information carefully before performing a merge.
 - A merge cannot be “undone.”
- Tracks of different types (for example, Platform and Link) can be “associated.”
 - An association can be broken, resulting in two separate tracks in the database.
- Tracks with different scopes (for example, OTH and LOCAL) cannot be merged or associated.

- An ambiguity can be merged into a track, but a track cannot be merged into an ambiguity.
- When comparing two tracks, one track is the master and one is the slave. If merged:
 - The slave is merged into the master.
 - Existing values from the master track are recommended in most cases where the tracks have different attribute values.
 - For some fields, the operator can override the recommended master value.
- When Link tracks are associated to a parent, unique rules apply:
 - All Link-11 parameters (STN, PIF, DI, Category, and Threat) will over-write the existing Platform track parameters.
 - Only one Link track may be associated to a Platform track. If a Link-to-Platform track association already exists, then the previous association will be automatically broken prior to the new manual association request.
- If multiple tracks are selected, the comparison can occur from the perspective of the master or the slave.
 - Choose one track as a master—all other selected tracks are treated as slaves and may be compared to the master sequentially.
 - Choose one track as a slave—all other selected tracks are treated as candidate masters and may be compared to the slave sequentially.
 - A LIST SLAVE button is provided at the top of the COMPARE window to permit more immediate access to a specific slave track.

Selecting tracks to compare:

1. Select two or more tracks to compare—using one of the track selection methods (from the display, or the DATABASE SEARCH window, or the QUICK SEARCH window).
2. Choose COMPARE from the TRACKS pull-down menu.
 - If more than two tracks are chosen, the SELECT TRACK window appears, with a list of the selected tracks (Figure 11.19-2).
3. Select a track for the basis of the comparison.
 - Highlight the track in the list.
 - Click either the SELECT MASTER or SELECT SLAVE diamond knob.

4. Optional: Click the AUTO-GEO PLOT checkbox to automatically center the tactical display on a point between the master track and the slave track.
 - All track history points are automatically displayed for both tracks.
 - If AOUs are present for any of these history points, they will also be displayed, depending on the user's last selection for the GEO plot.
 - To reduce display clutter, all other tracks will be plotted as dots on the display. Only the master and slave will be shown with their standard display symbols.
5. Optional: Click AUTO ICONIFY to automatically iconify the COMPARE window. This toggle is active only when the AUTO GEO-PLOT is active.
6. If the AUTO-GEO PLOT checkbox was toggled ON, click OK.

HINT: The AUTO-GEO PLOT checkbox (with two tracks selected) allows the user to bypass the Master/Slave selection window and go directly to the display.

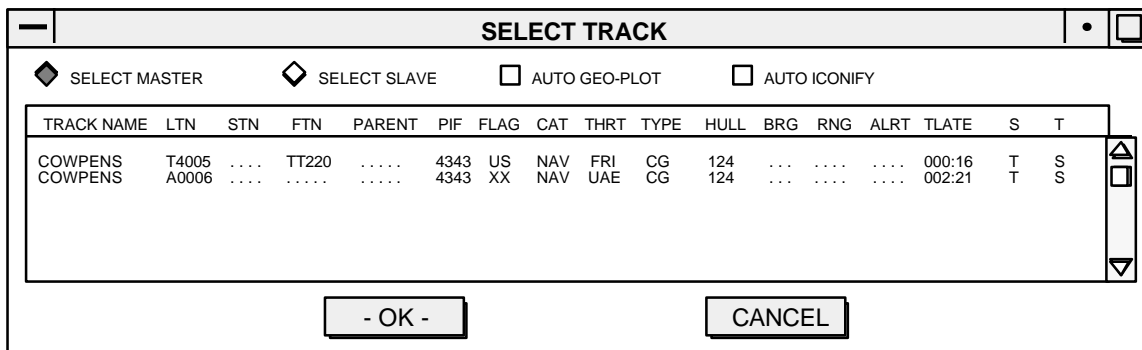


Figure 11-19-2 Select Track Window

Compare the tracks:

If the AUTO-GEO PLOT checkbox *was not* toggled on, click OK from the SELECT TRACK window to open the COMPARE TRACKS/AMBIGUITIES window (Figure 11.19-3).

COMPARE TRACKS/AMBIGUITIES			
CANDIDATE MASTER		SLAVE TRACK/AMB	MERGED
<input type="button" value="LIST MASTER"/>		<input type="button" value="LIST SLAVE"/>	
REASON: UNIQUE ATTRIBUTE MISMATCH --> NAME/FLAG			
OTH REAL-WORLD T4005		OTH REAL-WORLD T4006	
FTN	T7220		T7220
STN	2345		2345
UID	WAN039864425	WAN039864426	WAN039864425
NAME	COWPENS	COWPENS	COWPENS
SHORTNAME	COWPENS	COWPENS	COWPENS
CLASS	TICONDEROGA	TICONDEROGA	TICONDEROGA
CATEGORY	NAV	NAV	NAV
THREAT	FRI	UAE	FRI
TRADEMARK			
SCONUM			
CALLSIGN			
FLAG	US	XX	US
TYPE	CG	CGN	CG
HULL	124	124	124
PIF	4343	1234	4343
DI			
UIC			
ALERT			
TAC SIGNIF	NO	NO	NO
REPORT RESP	OTH	OTH	OTH
TARGET FILE	OUT	OUT	OUT
RTN 1			
RTN 2			
RTN 3			
RTN 4			
RTN 5			
NRPTS	0028	0001	0029
DTG	252134Z MAR 95	251929Z MAR 95	252134Z MAR 95
POSIT	2834N 12936W	2813N 12923W	2834N 12936W
CSE SPD	328.5 0020.0	044.0 0015.0	328.5 0020.0
AOU	ELLIPSE	ELLIPSE	ELLIPSE
BRG	000.0T	000.0T	000.0T
AXES	0001.0NM-0001.0NM		0001.0NM-0001.0NM
ALT/DEPTH			
SOURCE SENSOR			
XREF			
<input type="button" value="RAW DATA"/> <input type="button" value="NEXT"/> <input type="button" value="PREV"/> <input type="button" value="NEXT"/> <input type="button" value="PREV"/> <input type="button" value="RAW DATA"/> <input type="button" value="ADD SYN"/> <input type="button" value="ADD PDC"/>			
DISTANCE ... 0023.9 NM TIME DIFF ... 002.05 RQRD SPD ... 011.5 KTS GEO SCORE ... 1.00		<input type="button" value="GEO"/> <input type="button" value="MERGE"/> <input type="button" value="SWITCH"/> <input type="button" value="DELETE"/> <input type="button" value="NU-TRK"/> <input type="button" value="EXIT"/>	

Figure 11.19-3 Compare Tracks/Ambiguities Window

The selected track appears in the CANDIDATE MASTER or SLAVE TRACK/AMB column, based on the diamond knob chosen.

The first non-selected track from the SELECT TRACK window appears in the other column.

COMPARE TRACKS/AMBIGUITIES Window Buttons

Appropriate buttons are available, based on the master and slave tracks that appear in the window. Other buttons are dimmed.

LIST SLAVE/LIST MASTER—shows a window containing non-selected tracks. Works in conjunction with the SWITCH button.

1. Depending on which diamond knob was chosen in the SELECT TRACK window—SLAVE or MASTER—the LIST button is available to view/select (next or previous) non-selected tracks.
2. Click LIST SLAVE to see the SELECT SLAVE TRACK window.
 - This window's appearance is the same as the SELECT TRACK window.
3. Select a track from the list and click OK.
 - The information appears in the COMPARE TRACKS window.
4. Click SWITCH to switch the positions of the master and slave tracks. If there are available master tracks, the LIST MASTER button becomes selectable.

NEXT or PREV—shows the next or previous non-selected track from the SELECT TRACK window.

- Buttons are available only if more than two tracks appear in the scroll list of the SELECT TRACK window.
- The selected master or slave track always remains the same and the buttons are dimmed in that column.

RAW DATA—view the raw data for the track. Raw data is shown only for those reports that were received through a transmission.

1. Click RAW DATA to open the RLOG EDITOR window.
 - This window is the same window that can be accessed through the REPORT LOG options from the FOTC/BCST menu.
2. Use the window buttons to view the track reports.

ADD SYN—add a synonymous track name to the synonym table. This button is active only when the master and slave track display different valid names. Described in *Add Synonym*. For example, add JF Kennedy as a synonym for the carrier Kennedy JF. This prevents future ambiguities from data sources that are incorrectly reporting the ship as JF Kennedy.

ADD PDC—add the slave track's PIF number to the PIF DON'T CARE TABLE. Described in *Add PIF Don't Care*. This is useful if one or more sources of data are reporting information with an incorrect PIF code.

GEO—"zero in" on a view of the master and slave track.

1. Click GEO to center the tactical display around the slave track.
 - Note: If AUTO-GEO has been previously toggled ON in the SELECT TRACK window, the GEO button will be grayed-out when the COMPARE window opens.
2. All tracks (*except* the slave track and master track) are plotted in dots. The master and slave track maintain their natural track symbology.
 - Both tracks are shown. The map adjusts to accommodate any distance between the slave and master track.
 - Click PREVIOUS CHART (MAP OPTIONS menu) to return the display to the prior view.

MERGE—the two tracks and create one symbol on the tactical display.

- ASSOC—associate tracks. Replaces the MERGE button when tracks of different types are compared.
- Merge and associate are described in *Merging Tracks*.

SWITCH—the positions of the master and slave tracks. The slave track moves to the master column and the master track moves to the slave column.

DELETE—the track in the SLAVE TRACK/AMB column from the track database.

NU-TRK—create a new track for an ambiguity track shown in the SLAVE TRACK/AMB column.

1. Click NU-TRK.
2. The ambiguity is automatically converted to a track.
3. Local and FOTC track numbers change from numbers preceded by an "A" to numbers preceded by a "T."

EXIT—exit the COMPARE option.

COMPARE TRACKS/AMBIGUITIES Window Fields

The COMPARE TRACKS window contains three columns of track data fields. The fields are described in the EDIT option from the TRACKS pull-down menu.

- **CANDIDATE MASTER** column—contains the most recent master track data.
- **SLAVE TRACK/AMB** column—contains the most recent slave track data.
- **MERGED** column—shows the track data that will result if the master and slave are merged.
 - **RED**: different attribute values for master and slave tracks. Master track value is chosen for the merge; operator can modify it.
 - **YELLOW**: only one of the tracks has a value, which is chosen for the merge. Operator can modify it.
 - **GREEN**: both master and slave have the same value, which is chosen for the merge. Operator can modify it.
 - **WHITE**: master value is chosen for the merge; cannot be modified by the operator.

Additionally, there are several general information fields:

REASON

If the slave track is an ambiguity, the REASON field near the top of the window provides a brief explanation why the correlation process classified the track as an ambiguity.

Note: If there are multiple attribute conflicts, only the first conflict will be shown.

DISTANCE

Distance between the last reported master position and the last reported slave position.

TIME DIFF

Amount of time between the last master report and the last slave report.

RQRD SPD

Speed required to cover the distance between the positions of the two latest positions for the master and slave tracks.

GEO SCORE

Level of correlation between the master and slave track attributes. Range: zero to one, with one indicating the best geofeasibility. (Aircraft are not subject to geofeasibility requirements.)

11.19.1 MERGING TRACKS

A slave and a master of the same type (for example, Unit) can be merged to form one track.

A slave and a master of different types (for example, Platform and Link) can be associated. The appropriate button label appears for the selected tracks.

The MERGED column shows the track data that will result if the master and slave are merged or associated.

RED—different attribute values for master and slave tracks. Master track value is chosen for the merge; operator can modify it for most attributes.

YELLOW—only one of the tracks has a value, which is chosen for the merge. Operator can modify it.

GREEN—both master and slave have the same value, which is chosen for the merge. Operator can modify it for most attributes.

WHITE—master value is chosen for the merge; cannot be modified by the operator.

Caution: Merges can be undone only by a very time-intensive manual process. Therefore, before merging carefully examine the track's feasibility fields (rqrd speed, geo score, etc.) and the track histories to ensure their compatibility.

How to merge a slave and master track:

1. Values in the MERGED column for any of the following fields can be changed *before* the tracks are merged: NAME, SHORTNAME, CLASS, CATEGORY, THREAT, TRADEMARK, SCONUM, CALLSIGN, FLAG, TYPE, HULL, PIF, DI, UIC, and ALERT.
2. Click MERGE to merge the tracks together.
3. The two previous tracks on the tactical display are replaced by only one track, with the attributes that are listed in the MERGED column of the COMPARE TRACKS window.
4. Track histories for both tracks are combined in chronological order according to the DTGs of the reports.

How to associate a track:

1. If the master track is a Platform track and the slave track is a Link, ELINT, or acoustic track, the name of the MERGE button changes to ASSOC.
 - If the master track is a Unit track, the slave track can only be an ELINT track.

2. Click ASSOC and the two tracks are associated with each other—not merged.
3. When two tracks are associated, the master track becomes the parent in the association, and the slave track becomes the child.

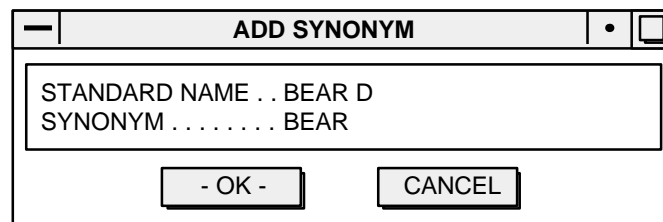
11.19.2 ADD SYNONYM

The ADD SYNONYM button is active only when the master and slave track display different valid names in their NAME fields.

- Use the ADD SYN button if the slave track's name is not *exactly* the same as the name shown for the master track, but is synonymous. For example:
 - Master track is reported as "STANLEY WH."
 - Slave track is reported as "USS STANLEY."
 - Add "USS STANLEY" to the synonym table.
 - If "USS STANLEY" is reported, it is treated as equal to "STANLEY WH" for correlation purposes.
- The synonym table correlates reports for a ship that has been reported under a name other than its proper reporting name, as outlined and designated in the Standard Attribute Reference (STAR) Manual.

To add the slave track name to the synonym table:

1. Click ADD SYNONYM to open the ADD SYNONYM window (Figure 11.19-3).
2. The name of the master track appears in the STANDARD NAME field and the name of the slave track in the SYNONYM field.
3. Click OK to add these values to the synonym table, or click CANCEL to discard this entry. Clicking either button returns to the COMPARE window.



ADD SYNONYM	
STANDARD NAME ..	BEAR D
SYNONYM	BEAR
<div style="display: flex; justify-content: space-around;"> - OK - CANCEL </div>	

Figure 11.19-3 Add Synonym Window

Note: Entries can also be added to the synonym table with the TRACK TABLES-SHIP SYNONYMS option from the TRACKS pull-down menu.

11.19.3 ADD PIF DON'T CARE

The ADD PDC button is active only when the master and slave track display different valid PIF numbers in their PIF fields.

- If the slave track contains a PIF (Pseudo-Identification Feature) number that can be discarded for correlation purposes, use the ADD PDC button to add this value to the PIF DON'T CARE TABLE.
- When a track enters the system with a PIF value that matches an entry in the PIF DON'T CARE TABLE, the PIF number is ignored during track correlation.

To add the slave track PIF number to the PIF DON'T CARE TABLE:

1. Click ADD PDC to open the ADD PDC window (Figure 11.19-4).
2. The ADD PDC window shows the PIF number, category, and threat values for the slave track.
3. Click OK to add these values to the PIF DON'T CARE TABLE, or click CANCEL to discard the entry. Clicking either button returns to the COMPARE window.

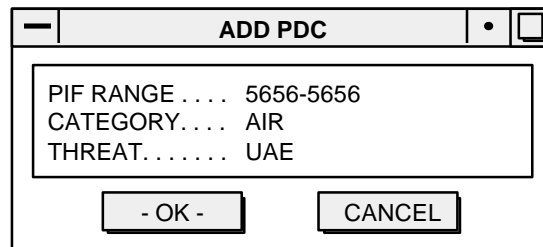


Figure 11.19-4 Add PDC Window

Note: Entries can also be added to the PIF DON'T CARE TABLE with the TRACK TABLES-PIF DON'T CARE option from the TRACKS pull-down menu.

COMPARE TRACKS/AMBIGUITIES Window Pop-up Menu Options

In addition to options that perform as buttons described above (ADD PDC, ADD SYN, ASSOC, DELETE, EXIT, GEO, LIST CAND, LIST SLAVE, MASTER RAW DATA, MERGE, NEXT MASTER, NEXT SLAVE, NU-TRK, PREV MASTER, PREV SLAVE, SLAVE RAW DATA, and SWITCH), the COMPARE TRACKS/AMBIGUITIES window also includes:

GEO CONTROLS

Use the GEO CONTROLS pop-up option to open the PLOT TYPE window (Figure 11.19-5).

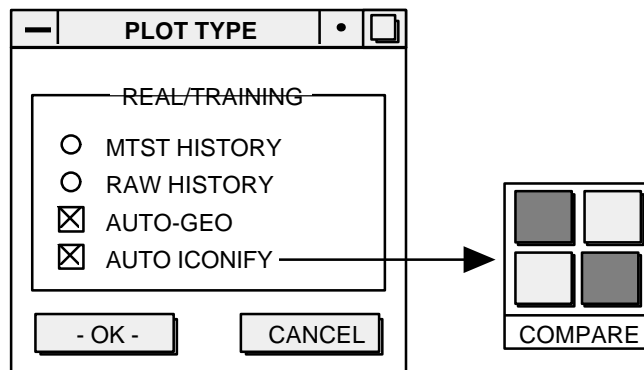


Figure 11.19-5 Plot Type Window

PLOT TYPE Window Fields

MTST HISTORY

Use the MTST HISTORY option to turn ON or OFF the MTST history plot for the selected track.

MTST should be used only for ships; it displays a “smoothed” track history display and shows a *predicted* current position for both the slave and master tracks.

- Depending on the age of the two latest (displayed) positions for the master and slave, the MTST predicated current positions will be separated by some distance from the smoothed track history display.
- The predicted position will be connected to the smoothed track history plot via a dotted line.
- The AOU for the MTST predicted position is shown by a dotted ellipse, centered on the prediction.

RAW HISTORY

Use to view the raw data history for the selected track. Raw history data is shown only for those reports that were received through a transmission. Note: The RAW HISTORY display option should always be used with air tracks.

- When this button is toggled ON, all reported track history positions and associated AOUs for each position are shown.
- The master and slave track are always shown with their normal symbology at their most recent posits.

AUTO-GEO

When toggled ON, automatically centers the tactical display to a location centered between the most recent positions of the master and slave tracks. All other tracks are temporarily plotted as dots.

AUTO ICONIFY

When toggled ON, automatically iconifies the COMPARE window when it is opened.

11.20 DUPLICATES

Use the DUPLICATES option to search for multiple tracks with some identifying attribute in common. This option assists in identifying duplicate tracks that should be merged into one track.

- Some attributes such as RTN, CLASS, TYPE, HULL NO, TRADEMARK, ELNOT, EMITTER, FLAG, and ALERT will naturally have duplicates.
- Others—LTN, FTN, STN, SCONUM, CALLSIGN—should not have duplicate data.
- Tracks with duplicate attributes can be passed through the COMPARE option to quickly merge those which represent the same object.

To access this window: TRACKS pull-down menu : DUPLICATES option : DUPLICATES window (Figure 11.20-1).

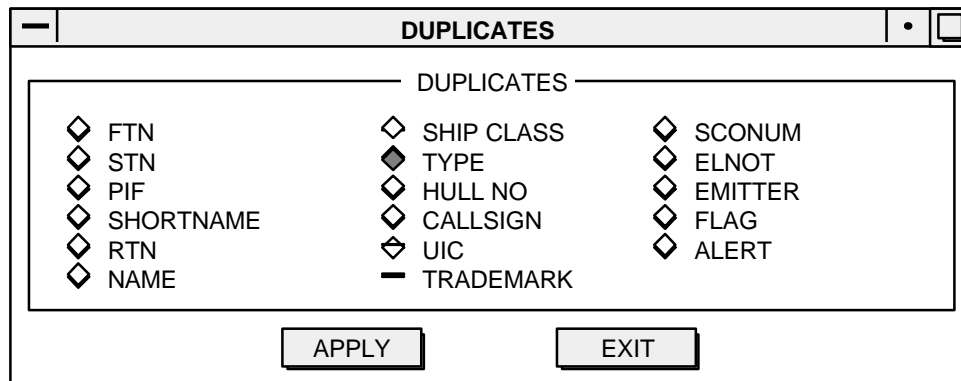


Figure 11.20-1 Duplicates Window

How to use the DUPLICATES option:

1. Click a diamond knob to select an attribute. (Only one diamond knob can be selected at a time.)
2. Click APPLY to search the database for tracks that have duplicate values for the selected attribute.

3. A window lists the values that have duplicates and the number of tracks for each value.
4. To view tracks with duplicate values, select one of the entries from the list and click OK.
5. The SELECT MASTER TRACK FOR MERGE window appears. All tracks with the selected value appear in the scrolling list.
6. Use COMPARE to merge duplicate tracks.
 - Choose a track to use as the master track and click OK to view the COMPARE window.
 - Refer to *COMPARE* from the TRACKS pull-down menu for information on comparing tracks.
7. Repeat steps 1–6 to search for duplicates of each attribute.
8. Click EXIT to close the DUPLICATES window and exit the option.

11.21 TRACK STATUS

Use the TRACK STATUS option to view the number of tracks in the system and grand totals for tracks across all levels.

By track type:

- Tracks, ambiguities, and associated tracks (Platform, Emitter, Link, etc.).
- Selected tracks, ambiguities, and associated tracks.

By availability level:

- Real-World, Live Training, and Simulated tracks (OTH, Local, or Terminal).
- Selected Real-World, Live Training, and Simulated tracks.

To access this window: TRACKS pull-down menu : TRACK STATUS option : SYSTEM TRACK TOTALS window (Figure 11.21-1).

TRACK TOTALS									
		TRACK TOTALS				SELECTED			
		MAX	TRKS	AMBS	ASSOC	TLATE	:	TRKS	AMBS
		VALUE							ASSOC
FOTC TRACKS			0000			NONE			
PLATFORM	2500	0052	0022	0000	99:59+	0000	0000	0000	
LINK/ACDS	0200	0000	0000	0000	NONE	0000	0000	0000	
EMITTER/ELINT	1500	0005	0000	0005	99:59+	0000	0000	0000	
ACOUSTIC/SUB	0050	0006	0001	0007	99:59+	0000	0000	0000	
UNIT	2000	0000	0000	0000	NONE	0000	0000	0000	
SPA-25	0100	0000	0000	0000	NONE	0000	0000	0000	
RAYCAS V	0324	0000	0000	0000	NONE	0000	0000	0000	
SI	0050	0000	0000	0000	NONE	0000	0000	0000	
FCS	0050	0000	0000	0000	NONE	0000	0000	0000	
EXTERNAL	0000	0000	0000	0000	NONE	0000	0000	0000	
TOTALS	6774	0063	0023	0012		0000	0000	0000	
		REAL LVTS SIM = TOTAL :				SELECTED			
OTH	0085	0000	0001	= 0086	:	0000	0000	0000	= 0000
LOCAL	0000	0000	0000	= 0000	:	0000	0000	0000	= 0000
TERMINAL	0000	0000	0000	= 0000	:	0000	0000	0000	= 0000
TOTALS	0085	0000	0001	0086		0000	0000	0000	0000
APPLY					EXIT				

Figure 11.21-1 System Track Totals Window

About the window:

- Maximum values listed are those set locally. Only the System Administrator can change their values.
- Each track type (Platform, Emitter, Link, etc.) shows the amount of time elapsed since the last report (timelate).
- The window has a dynamically changing display.
- Use EXIT to close the window.

SYSTEM TRACK TOTALS Pop-Up Menu

In addition to the options described in *Summary of Common Operations* (APPLY and EXIT), or that function as buttons with the same name, the SYSTEM TRACK TOTALS pop-up menu also includes:

SELECTED

Shows the SYSTEM TRACK TOTALS window with totals for selected tracks in all categories, as illustrated in Figure 11.21-1.

NO SELECTED

Shows the SYSTEM TRACK TOTALS window without totals for selected tracks. The SELECTED columns do not appear in the window.

11.22 TRACK SUMMARIES

Use the TRACK SUMMARIES cascading menu to view summary windows for these track types:

- TRACK
- SELECTED TRACK
- AMBIGUITY
- ELINT TRACK
- ELINT AMBIGUITY
- SELECTED ELINT
- ACOUSTIC/SUB
- UNIT TRACK
- UNIT AMBIGUITY
- SELECTED UNIT
- NIPS TRACK (NIPS workstations only)

11.22.1 TRACK

Use the TRACK option to display a summary of all tracks in the track database.

To access this window: TRACKS pull-down menu : TRACK SUMMARIES cascading menu : TRACK option : TRACK SUMMARY window (Figure 11.22-1).

TRACK SUMMARY																
NUMBER OF ENTRIES: 0003																
TRACK NAME	LTN	STN	FTN	PARENT	PIF	CC	CAT	THR	TYPE	HULL	SOURCE	SENSOR	BRG	RANGE	ALERT	TLATE
AARON	T4437	6020	7439	.....	.....	..	UNK	UNK	ALRT	.....	RG	NAV	022	5028	...	000:22
ABRAMS	T4007	.....	7007	.....	5020	UF	AIR	FRI	.....	.....	RG	NTDS	102	2665	...	000:21
CHARLESTON	T4010	.....	7010	.....	5025	UU	AIR	UNK	F-14	.....	RG	NTDS	105	2871	HIT	000:15

Figure 11.22-1 Track Summary Window

TRACK SUMMARY Window Buttons

EDIT—a track.

1. Select one or more tracks.
2. Click EDIT to open the EDIT window. (This is the same window that appears when using the EDIT option.)
3. If multiple tracks were selected, the NEXT and PREV buttons will be active in the EDIT window. Use these buttons to view the next or previous track from the selected group.
4. Click EXIT to return to the TRACK SUMMARY window.

DELETE—a track.

1. Select one or more tracks.
2. Click DELETE. The selected tracks are removed from the system.

XMIT—transmit a track to another location.

1. Select one or more tracks.
2. Click XMIT to open the XMIT FORMAT window and start the transmission process. See XMIT from the TRACKS pull-down menu for details about the XMIT FORMAT window.

RESOLVE—view the candidates for a selected track and determine whether they should be merged.

1. Select one track.
2. Click RESOLVE to open the COMPARE window.

- If there is more than one candidate, the NEXT and PREV buttons are active.
- 3. Use the options in the COMPARE window to resolve whether the track and its candidates should be merged. (See the *COMPARE* section for more information.)

COMPARE—two or more selected tracks and determine whether they should be merged.

1. Select two or more tracks from the list.
2. Click COMPARE to open the SELECT TRACK window.
3. Choose a master or slave from this window.
4. Click OK to open the COMPARE window for the selected tracks.
 - Use the options in the window to determine whether the selected tracks should be merged.
 - See the *COMPARE* section for more information.

REFRESH—update the track summary list to include new tracks that have come into the system since this option was selected.

REPROCESS—send a track through the correlator again. Use when fields that affect correlation are edited.

1. Select one or more tracks.
2. Click REPROCESS.

EXIT—the option and close the window.

TRACK SUMMARY Window Pop-up Menu Options

Pop-up menu options (described in *TRACK SUMMARY Pop-up Menu*): ARCHIVE, BREAK ASSOC, COMPARE, DEFAULT COLUMNS, DELETE, EDIT, EXIT, HULTEC TDA, PRINT ALL, PRINT SELECTED, REFRESH, REPROCESS, RESOLVE, RESTORE, SELECT ALL, SELECT COLUMNS, UNSELECT ALL, and XMIT.

TRACK SUMMARY Window Fields

When the TRACK SUMMARY window first opens, the tracks are sorted by track name. Click any of the following column titles to re-sort the list on that column:

TRACK NAME
Track name.

LTN

Local track number assigned by the system.

STN

System track number. This is also known as the Naval Tactical Display System (NTDS) track number.

FTN

Force Over-The-Horizon Track Coordinator track number. Assigned by the system on the FOTC ship when in FOTC Controller mode.

PARENT

Local track number of the parent track if the track is associated with another track.

PIF

Pseudo Identification Feature (PIF) number; a four digit code that provides an exact ID for the ship or aircraft. Friendly military only.

CC

Two-letter code identifying the country associated with the track.

CAT

Track category (AIR, FSH, LAND, MER, etc.).

THR

Threat classification code (FRI, HOS, NEU, etc.).

TYPE

Ship type of the track, such as DDG, CV, CG, or SSN. In some cases, the aircraft designator (for example TU16, F14, A6, or E2C) may appear in this column.

HULL

A 1–6 character alphanumeric entry assigned to the ship and shown on the ship's hull (e.g., A35, D51).

SOURCE

Two-letter OTCIXS station source code (for example, AM=America). Letters are taken from the Source XREF Table, which can be viewed from the SOURCE XREF TABLE option (MISC menu).

SENSOR

Sensor type used to pick up the track at its last reported position.

BRG

Bearing of the track from Ownship.

RANGE

Range of the track from Ownship, in nautical miles.

ALERT

ALERT code (HIT, TGT, etc.).

TLATE

Amount of time elapsed since the last report for the track.

TRACK SUMMARY Pop-Up Menu

In addition to the options described in *Summary of Common Operations* or that function as buttons with the same name (EDIT, EXIT, DELETE, XMIT, RESOLVE, COMPARE, REFRESH, PRINT ALL, REPROCESS, SELECT ALL, and UNSELECT ALL), the TRACK SUMMARY pop-up menu also includes the following

BREAK ASSOC

To break a track association:

1. Select the associated track (not the parent) from the TRACK SUMMARY window.
2. Choose BREAK ASSOC from the pop-up menu.
 - The two tracks become separate entities and are represented by two different tracks on the tactical display.

HULTEC TDA

The HULTEC TDA pop-up option works in conjunction with the HULTEC DATABASE option (TDAs pull-down menu) by comparing an ELINT track for an unidentified ship with known ships using an emitter with the same characteristics. Thus, specific ships can be identified just from their ELINT data.

1. Select one ELINT track.
2. Choose the HULTEC TDA pop-up option.
 - HULTEC TDA compares the selected ELINT track with the HULTEC database to find a track with the same or equivalent ELINT notation.
 - If one or more tracks are found, the parametric information is checked to see if there is an intersection.
 - If there are no ELINT notation matches or parametric intersections, a message states that "there are no HULTEC candidates."
 - If an intersection exists, the track is presented as a HULTEC candidate (Figure 11.22-2).

3. If a candidate represents the selected ELINT track, click ASSIGN IDENTITY to assign the identity of the matching ship from the HULTEC database to the selected ELINT track.
 - A new Platform track is built that contains both emitter and ship information.
 - The resulting Platform track is either a new track, an update to an existing track, or an ambiguity.
 - This track is sent through correlation. Results are returned in an EDIT window.
4. In the EDIT window:
 - Verify that the newly created Platform track represents the selected ELINT track.
 - If it does, click OK to accept it.
 - If it doesn't, click CANCEL and all the HULTEC TDA work will be undone.
 - Either OK or CANCEL returns to the HULTEC CANDIDATES window.
5. Click EXIT from the HULTEC CANDIDATES window to return to the TRACK SUMMARY window.

HULTEC CANDIDATES

TRACK NAME: UNKNOWN TRACK NUMBER: E00001

REPORT/TRACK

ELNOT	PRI	SCAN	RF
12345	1.000000	0.00	0.0

NUMBER OF CANDIDATES: 1

CANDIDATES

SHIPNAME	CLASS	TYPE	HULL	FLAG	SCONUM
SAMPLESHIP	COLBERT	ABUL	123	US	12345

EXIT ASSIGN IDENTITY

Figure 11.22-2 HULTEC Candidates Window

The HULTEC CANDIDATES window shows the selected ELINT track name and track number at the top of the window. The NUMBER OF CANDIDATES field appears in the middle of the window.

REPORT/TRACK Box:

ELNOT

This five digit ELINT notation field begins with an alpha character, followed by three numbers, ending with another alpha character.

PRI

Pulse repetition interval.

SCAN

Scan rate, measured in seconds per rotation (SPR).

RF

Radio frequency, measured in megahertz (MHZ).

CANDIDATES Box:

SHIPNAME

Name shown in the track's UNIT NAME field.

CLASS

Ship class or aircraft model/class designator.

TYPE

Code for ship type (for example, CGN).

HULL #

A 1–6 character alphanumeric entry assigned to the ship and shown on the ship's hull (e.g., A35, D51).

FLAG

Two-letter code identifying the country associated with the track.

SCONUM

Naval vessel identification number (alphanumeric code) assigned by the Office of Naval Intelligence. SCONUM (Ship's Control Number) is sometimes referred to by its old name—NOIC ID. SCONUMs are typically of the form A#####.

ARCHIVE

Use the ARCHIVE pop-up option to save a copy of platform or emitter/ELINT tracks to a file on the internal hard disk.

Note: This ARCHIVE pop-up option works differently from other ARCHIVE pop-up options within the system.

1. Select one or more tracks to archive from the TRACK SUMMARY window.
2. Choose the ARCHIVE pop-up option to open the ARCHIVE NAME window (Figure 11.22-3).
3. Enter a name and description for the archive file.
4. Click OK to archive the tracks. (Or, click CANCEL to discard the archive.)
5. Tracks are automatically archived and the TRACK SUMMARY window reappears.

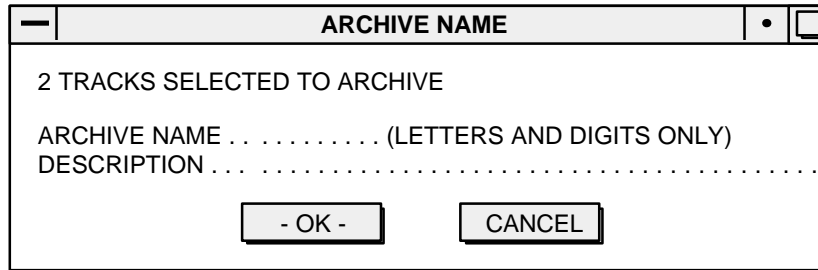


Figure 11.22-3 Archive Name Window

RESTORE

Use this pop-up option to open the SELECT ARCHIVE window (Figure 11.22-4) and retrieve tracks that were saved with the ARCHIVE pop-up option..

Note: This window will not appear unless at least one track archive file has been created.

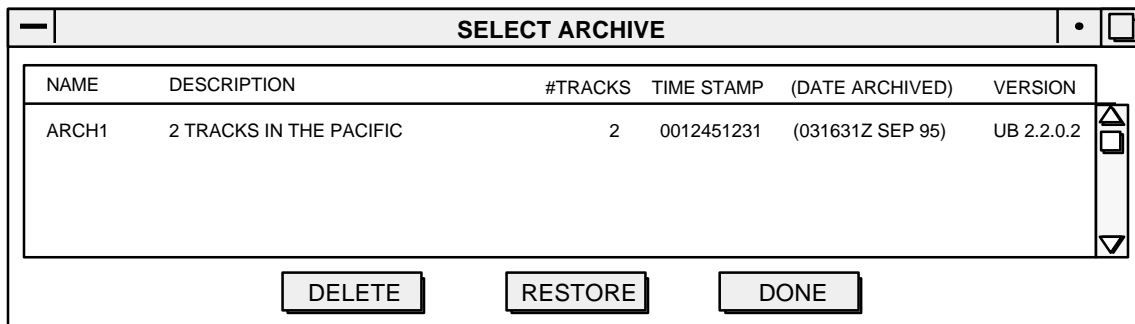


Figure 11.22-4 Select Archive Window

The SELECT ARCHIVE window lists the track archive files stored on the hard disk.

1. Select an archive file.
2. Click RESTORE to open the SELECT TRACKS TO RESTORE FROM ARCHIVE window, which lists the tracks in the archive file.
3. Select one or more tracks to restore.
4. Click OK and the tracks are restored. (Or click EXIT to ignore the restore process.)
 - Clicking either button returns to the SELECT ARCHIVE window.
5. To delete an archive file and the tracks in it:
 - Select one or more archive files.
 - Click DELETE.

- Confirm the delete to complete the process.
6. Click DONE to return to the TRACK SUMMARY window.

The following fields are shown for each archive file in the SELECT ARCHIVE window:

NAME

Name of the archived file.

DESCRIPTION

Description of the archive file.

#TRACKS

Number of tracks in the archive file.

TIMESTAMP

System-generated number—based on the time the file was created.
This is used to sort the files in order of creation time.

(DATE ARRIVED)

DTG when the file was archived.

VERSION

Unified Build version number.

PRINT SELECTED

Use the PRINT SELECTED pop-up option to print a summary of all selected tracks.

1. Select one or more tracks.
2. Choose PRINT SELECTED to open the JMCIS PRINTER window and start the printing process. (Refer to PRINT in Appendix A, *Common Operations*, for details about the JMCIS PRINTER window.)

SELECT COLUMNS

To select the columns and their order of appearance for the scroll list in the TRACK SUMMARY window:

1. Choose the SELECT COLUMNS pop-up option to open the DOUBLE LIST window.
 - Set the column headings and click EXIT.
 - Refer to SELECT COLUMNS in Appendix A, *Common Operations*, for details on the DOUBLE LIST window.
2. The TRACK SUMMARY window reappears with the selected columns in the scroll list.

In addition to the default columns previously described in the *TRACK* section, the following columns are available. Note: Column headings below are listed in alphabetical order and may appear in a different order, depending on the system.

ADMINISTRATIVE SUBORD

Administrative subordination for SI tracks.

AVERAGE PRI

Mean value for all reported Pulse Repetition Intervals (PRI).

AVERAGE RF

Mean value for all reported radio frequency values.

AVERAGE SCAN

Mean value for all reported scan rates.

BE NUMBER

Basic Encyclopedia number.

CALL SIGN

International radio call sign assigned to the ship is an 8-character alphanumeric code.

CROSS REFERENCE

Source reference code for the site that originally reported the track.

CURRENT POSITION

Most recently reported lat/long.

CURR TRACKER POSIT

MTST-calculated POSIT current position.

CTSX NUMBER

Link provider's internal track number (ACDS, 2-way Link, etc.).

DISCRETE IDENTIFIER

Intel Discrete Identifier.

ECHELON (Unit Tracks only)

Organizational level of the unit.

ELNOT

An acronym for ELINT Notation, the electronic emitter code assigned to a radar by the detecting sensor.

This five digit field begins with an alpha character, followed by three numbers, ending with another alpha character.

EMBARKED (Unit Tracks only)

Name of the platform on which the unit is embarked.

EMITTER NAME

Radar name (for example, RAY1500, SPN-43, HEADNET).

HOME BASE/PORT

Track's home base or port.

MTN

Master track number.

NATIVE TYPE

Ship type for SI tracks.

NUMBER OF REPORTS

Number of reports received.

OPERATIONAL SUBORD

Operational subordination for SI tracks.

ORGANIZATION TYPE (Unit Tracks only)

Organization type of the unit.

PARTICIPATING UNIT

Participating Unit—identifies the reporting source.

PDDG

PDDG value for SI tracks.

PLATFORM (Unit Tracks only)

Platform type for the unit.

PRI TOLERANCE

Standard deviation for the PRI.

RAID NUMBER

Raid number for SI tracks.

REASON (Ambiguities only)

Reason the track has been marked as an ambiguity.

RF TOLERANCE

Standard deviation for the radio frequency.

SCAN RATE TOLERANCE

Standard deviation for the scan rate.

SCONUM

Naval vessel identification number (alphanumeric code) assigned by the Office of Naval Intelligence. SCONUM (Ship's Control Number) is

sometimes referred to by its old name—NOIC ID. SCONUMs are typically of the form A#####.

SERVICE

If this is a unit track, the service code for the unit.

SHIP CLASS

Ship class or aircraft model/class designator.

SHORT NAME

Short name for the track; a name local to the network.

STRENGTH

Strength for unit tracks.

SUBJECT TYPE

Subject type for SI tracks.

SUFFIX

Suffix for SI tracks.

TRACK SCOPE

Track scope (OTH, Local, or Terminal).

TRACK TYPE

Track type (Real-World, Live Training, or Simulated).

TRADEMARK

Trademark (if the track is a submarine).

UIC (Ashore Sites only)

Unit ID number.

UNIQUE ID (Ashore Sites only)

Unique identifier for the track.

DEFAULT COLUMNS

Use the DEFAULT COLUMNS pop-up option to change the columns and their order of appearance in the TRACK SUMMARY window to their original default settings.

11.22.2 SELECTED TRACK

Use the SELECTED TRACK option to display a summary of all selected tracks.

To access this window: TRACKS pull-down menu : TRACK SUMMARIES cascading menu : SELECTED TRACK option : SELECTED SUMMARY window (Figure 11.22-5).

TRACK NAME	LTN	STN	FTN	PARENT	PIF	CC	CAT	THR	TYPE	HULL	SOURCE	SENSOR	BRG	RANGE	ALERT	TLATE
AARON	T4437	6020	7439	.....	.....	..	UNK	UNK	ALRT	.....	RG	NAV	022	5028	...	000:22
ABRAMS	T4007	.....	7007	.....	5020	UF	AIR	FRI	.....	.....	RG	NTDS	102	2665	...	000:21
CHARLESTON	T4010	.....	7010	.....	5025	UU	AIR	UNK	F-14	.....	RG	NTDS	105	2871	HIT	000:15

Figure 11.22-5 Selected Summary Window

The fields and functions available from this window are identical to those of the TRACK SUMMARY window, with one exception—the DYNAMIC option.

DYNAMIC

Toggle ON the DYNAMIC checkbox to declutter the tactical display and to automatically declutter the screen periodically.

For more information, see DYNAMIC DECLUTTER from the PLOT CONTROLS menu.

See the *TRACK SUMMARIES* window for detailed field descriptions.

11.22.3 AMBIGUITY

Use the AMBIGUITY option to display a summary of all ambiguities in the track database.

To access this window: TRACKS pull-down menu : TRACK SUMMARIES cascading menu : AMBIGUITY option : AMBIGUITY SUMMARY window (Figure 11.22-6).

TRACK NAME	LTN	REASON	STN	PIF	CC	CAT	THR	TYPE	HULL	SOURCE	SENSOR	BRG	RANGE	ALERT	TLATE
.....	A4437	.....	7232	....	..	UNK	UNK	ALRT	.....	RG	NAV	022	5028	...	000:22
SHIP 44	A4007	.....	....	7776	UF	AIR	FRI	.....	.....	RG	NTDS	102	2665	...	000:21
SHIP 78	A4010	.....	....	7777	UU	AIR	UNK	F-14	.....	RG	NTDS	105	2871	HIT	000:15

Figure 11.22-6 Ambiguity Summary Window

The fields and functions available from this window are identical to those of the TRACK SUMMARY window, with one exception—NU-TRK.

Use the NU-TRK button to create a track from an ambiguity:

1. Select a track to convert.
2. Click NU-TRK.
3. The ambiguity automatically converts to a track. The LTN (local track number) changes from a number preceded by an “A” to a number preceded by a “T.”
4. The track disappears from the AMBIGUITY SUMMARY window, since it is no longer an ambiguity.

11.22.4 ELINT TRACK

Use the ELINT TRACK option to display a summary of all ELINT tracks in the track database.

To access this window: TRACKS pull-down menu : TRACK SUMMARIES cascading menu : ELINT TRACK option : ELINT SUMMARY window (Figure 11.22-7).

EMITTER TRACK SUMMARY

NUMBER OF ENTRIES: 0003

ELNOT	EMITTER NAME	LTN	PARENT	CC	CAT	THR	AVG PRI	ASCAN	AVG RF	NRPT	BRG	RNG	TLATE
C123Z	E00001	.....	..	UNK	UNK	0669.640500	03.880	09470.0	0004	335	8263	000:22
C302Z	E00002	.....	..	UNK	UNK	0469.753000	03.530	05470.0	0004	336	8292	000:21
C456Z	E00003	.....	..	UNK	UNK	0888.753000	06.500	09444.3	0001	357	8035	000:15

EDIT

DELETE

XMIT

RESOLVE

COMPARE

REFRESH

REPROCESS

EXIT

Figure 11.22-7 Emitter Track Summary

EMITTER TRACK SUMMARY Window Buttons

EDIT—a track.

1. Select one or more tracks.
2. Click EDIT to open the EDIT window. (This is the same window that appears when using the EDIT option.)
3. If multiple tracks were selected, the NEXT and PREV buttons will be active in the EDIT window. Use these buttons to view the next or previous track from the selected group.
4. Click EXIT to return to the EMITTER TRACK SUMMARY window.

DELETE—a track.

1. Select one or more tracks.
2. Click DELETE. The selected tracks are removed from the system.

XMIT—transmit a track to another location.

1. Select one or more tracks.
2. Click XMIT to open the XMIT FORMAT window and start the transmission process. See *XMIT* from the TRACKS pull-down menu for details about the XMIT FORMAT window.

RESOLVE—view the candidates for a selected track and resolve whether they should be merged. Described in *Resolve Candidate Comparison*.

COMPARE—two or more selected tracks to set a master reference track.

1. Select two to twenty tracks (only) from the list.

2. Click COMPARE to open the SELECT REFERENCE EMITTER TRACK window.
3. Choose a master reference track. Other tracks are compared to this track to determine if any of them represent the same track.
4. Click OK.
5. The tactical display centers on the selected track and the ELINT CANDIDATES window appears. See the *Resolve Candidate Comparison* section for more details.

REFRESH—update the emitter track summary list to include new tracks that have come into the system since this option was selected.

REPROCESS—send a track through the correlator again. Use when fields that affect correlation are edited.

1. Select one or more tracks.
2. Click REPROCESS.

EXIT—the option and close the window.

EMITTER TRACK SUMMARY Window Pop-up Menu Options

Pop-up menu options are identical to TRACK SUMMARY pop-up menu options (described in *TRACK SUMMARY Pop-up Menu*): ARCHIVE, BREAK ASSOC, COMPARE, DEFAULT COLUMNS, DELETE, EDIT, EXIT, HULTEC TDA, PRINT ALL, PRINT SELECTED, REFRESH, REPROCESS, RESOLVE, RESTORE, SELECT ALL, SELECT COLUMNS, UNSELECT ALL, and XMIT.

EMITTER TRACK SUMMARY Window Fields

The EMITTER TRACK SUMMARY window presents the number of entries in the emitter track database and a summary of each emitter track.

When the TRACK SUMMARY window first opens, the tracks are sorted by track name. Click any of the following column titles to re-sort the list on that column:

ELNOT

An acronym for ELINT Notation, the electronic emitter code assigned to a radar by the detecting sensor.

This five digit field begins with an alpha character, followed by three numbers, ending with another alpha character.

EMITTER NAME

Radar name (for example, RAY1500, SPN-43, HEADNET).

LTN

Local track number.

PARENT

If the track is associated with another track, this column displays the local track number of the parent track.

CC

Two-letter code identifying the country associated with the track.

CAT

Track category (AIR, FSH, LAND, MER, etc.).

THR

Threat classification code (FRI, HOS, NEU, etc.).

AVG PRI

Mean value for all reported Pulse Repetition Intervals (PRI).

ASCAN

Mean value for all reported scan rates.

AVG RF

Mean value for all reported radio frequency values.

NRPT

Number of reports received for the track.

BRG

Bearing of the track from Ownship.

RNG

Range of the track from Ownship, in nautical miles.

TLATE

Amount of time elapsed since the track's last report.

11.22.4.1 Resolve Candidate Comparison

Select one track and click RESOLVE to center the tactical display on the selected track and open the ELINT CANDIDATES window (Figure 11.22-8).

ELINT CANDIDATES														
REFERENCE TRACK														
LOCAL	PARENT	ELNOT	EMITTER NAME	FLAG	CAT	THRT	PRI AVG	SCAN AVG	RF AVG	NRPTS	ALRT	TLATE	SOURCE	SENSOR
<input checked="" type="checkbox"/>	E00002	.....	C302Z	.....	..	UNK	UNK	0469.753000	03.530	05470.0	004	...	999:59+	.....

[] LOCAL	PARENT	ELNOT	EMITTER NAME	PBB	PRI AVG	PRI TOL	SBB	S AVG	S TOL	RF AVG	DIST	TDIFF	RQ'D SPD	ESCORE	GSCORE	TSORE	
<input checked="" type="checkbox"/>	E00002	C302Z	ADP	0469.753000	0000.000029	REP	03.530	00.003	0000NM	+001:05	0001 KTS	1.00	0.98	1.00
<input checked="" type="checkbox"/>	NEWTRK	.....	C302Z	.....	REP	0469.753000	0000.046975	REP	03.530	00.100	.....	.....	.....	0.00	0.02	0.00

Figure 11.22-8 ELINT Candidates Window

ELINT CANDIDATES Window Buttons

NEXT and PREV—if more than one ELINT track was selected when RESOLVE was clicked, use these buttons to view the tracks.

UPDATE—if one of the candidate tracks in the scroll list is a report for the reference track, use UPDATE to merge the candidate track with the reference track.

1. Select the track in the scroll list.
2. Click UPDATE to merge the two tracks.
3. The selected track is removed from the display and all of its reports are transferred to the reference track.

NU-TRK—if the reference track is an ambiguity, change it to a new emitter track.
Note: If the reference track is *not* an ambiguity, this button has no effect.

GEO PLOT—show all history points for the reference track and all candidate tracks.

- Each history point is displayed, with connecting lines from the start to the present position of each track.
- An AOU for the reference track and all candidate tracks is plotted for the time of the last reference track report.
- Candidate AOU's are projected forward or backward in time, as required.
- Track histories and AOU's are plotted in the color shown in the checkbox.
 - To change the color, click the checkbox and a LIST window (colors) opens.
 - Select a color from the list. The AOU's are plotted in the new color.

SCATTER—open the ELINT SCATTER PLOT window for all candidate tracks. Described in *Scatter Button*.

PARAM—open the ELINT PARAMETER VS TIME window for all candidate tracks Described in *PARAM Button*.

EXIT—the option and close the window.

ELINT CANDIDATES Window Pop-up Menu Options

Pop-up menu options (described in *ELINT CANDIDATES Pop-up Menu*): COLOR, EXCLUDE CANDS, EXIT, GEO PLOT, PARAM VS TIME, RESTORE CANDS, SCATTER PLOT, SELECT ALL, UNSELECT ALL, and UPDATE,

ELINT CANDIDATES Window Fields

The ELINT CANDIDATES window contains the REFERENCE TRACK box and a scroll list showing all candidates for the selected track.

REFERENCE TRACK Box

Fields for the selected track are identical to those that may appear in the EMITTER TRACK SUMMARY window and are described in *TRACK SUMMARIES—ELINT TRACK*.

ELINT CANDIDATES Scroll List

The scroll list contains all candidate tracks for the selected track, and also lists a NEWTRK entry among the candidates.

- NEWTRK is a hypothesis that an ELINT ambiguity reference track is a new emitter track and should not be merged with any existing tracks.
- If this is the case, select NEWTRK from the list and click UPDATE to change an ELINT ambiguity reference track into a new emitter track.

Several fields in the scroll list are identical to those in the EMITTER TRACK SUMMARY window. (See *TRACK SUMMARIES—ELINT TRACK* section for details.) The following new fields are in the scroll list:

CHECKBOX

First column in the scroll list. Indicates display status.

ON—display the candidate.

OFF—suppress the display.

PBB

Type of PRI basebanding used for this candidate:

REP Reported

RNG	Range
XTL	Crystal
ADP	Adaptive

SBB

Type of scan basebanding used for this candidate, either REP (Reported) or RNG (Range).

DIST

Distance (in NM) between the reference track's position and the candidate track's position.

TDIFF

Time difference (in hours and minutes) between the last candidate track report and the last reference track report.

RQ'D SPD

Speed required (in knots) for the candidate to travel from the candidate track's last reported position to the reference track's last reported position in TDIFF hours.

ESCORE

ELINT score for the candidate—based on the proximity of the candidate's basebanded parameter data to the reference track's basebanded parameter data. The closer this number is to 1, the higher the likelihood that this candidate represents the same track as the reference track.

Note: The sum of the ESCORES for all candidates totals 1.

GSCORE

GEO score for the candidate—based on the candidate's geographic proximity to the reference track. The closer this number is to 1, the higher the likelihood that this candidate represents the same track as the reference track.

Note: The sum of the GSCORES for all candidates totals 1.

TSCORE

Total score of the Emitter track; computed using the track's ESCORE and GSCORE. The closer this number is to 1, the higher the probability that the Emitter track represents the same track as the ESM track.

Note: The sum of the TSCOREs for all candidate Emitter tracks is 1.000.

SCATTER Button

Click SCATTER to open the ELINT SCATTER PLOT window for all candidate tracks (Figure 11.22-9).

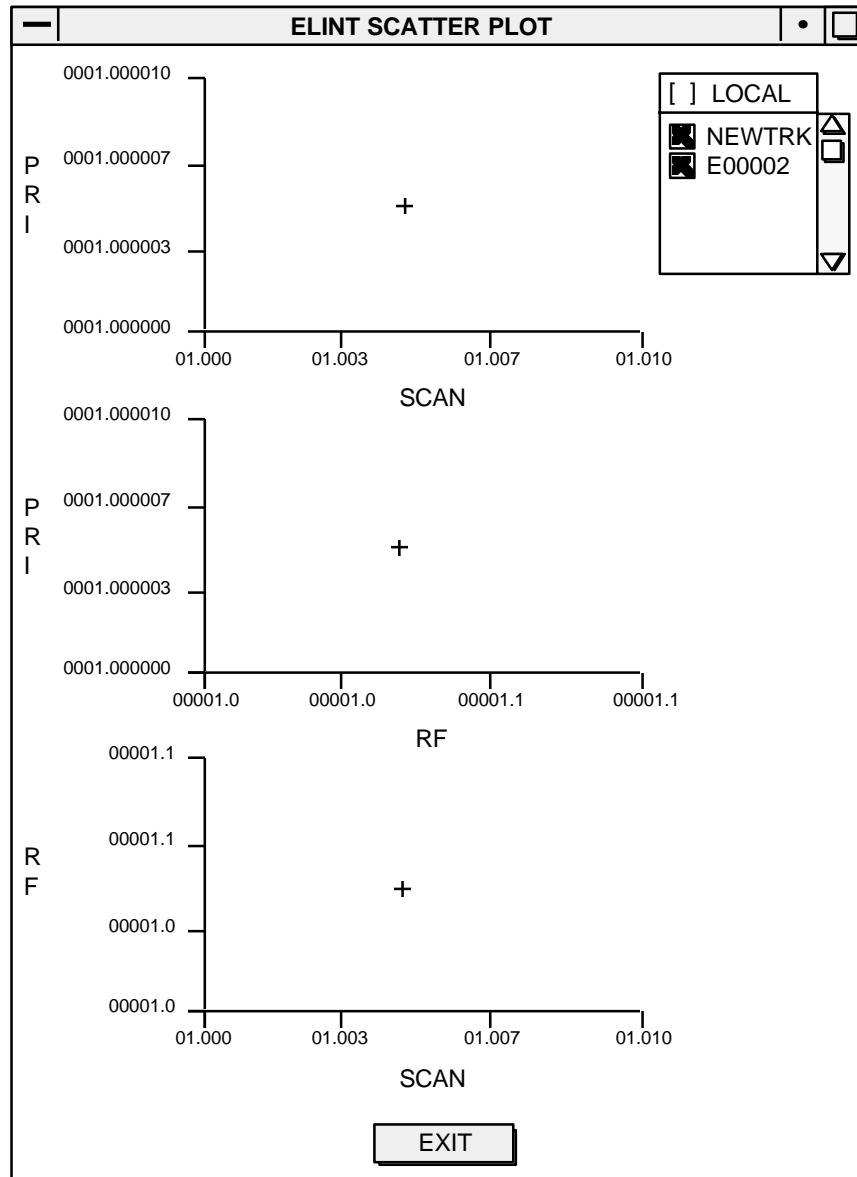


Figure 11.22-9 ELINT Scatter Plot Window

About the ELINT SCATTER PLOT window:

- It contains three graphs for candidate tracks: PRI vs. SCAN, PRI vs. RF, and RF vs. SCAN.
- If only PRI data exists, a “NO DATA FOR SCATTER PLOT” message appears.

- The scroll list at the top right part of the window contains the candidate names and their color. Toggle a checkbox ON or OFF to show or suppress the display of data for a particular candidate.
- Click EXIT to return to the ELINT CANDIDATES window.

PARAM Button

Click PARAM to open the ELINT PARAMETER VS TIME window for all candidate tracks (Figure 11.22-10).

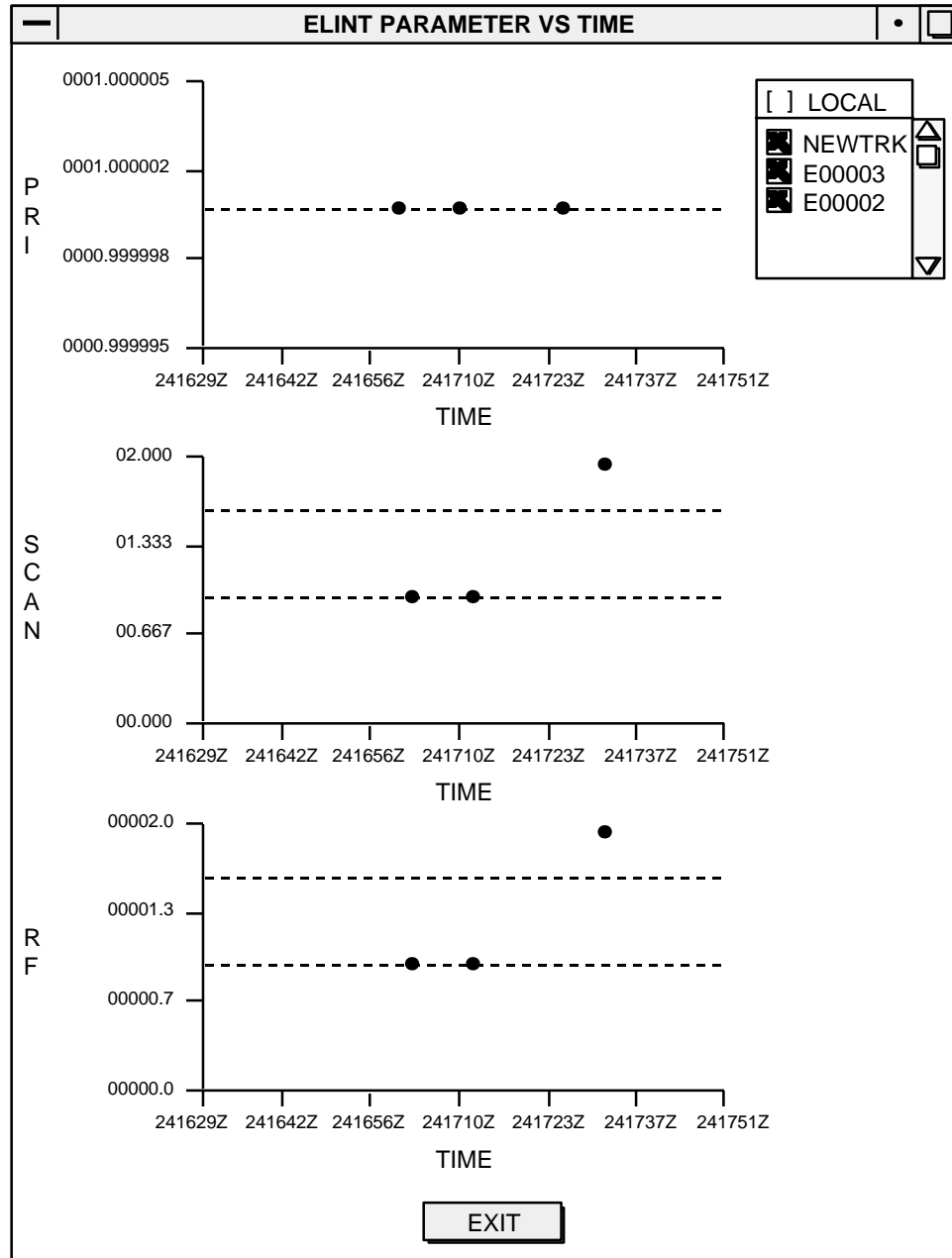


Figure 11.22-10 ELINT Parameter vs. Time Window

About the ELINT PARAMETER VS TIME window:

- It contains three graphs showing PRI, SCAN, and RF time plots for all candidate tracks.
- The scroll list at the top right part of the window contains the candidate names and their color. Toggle a checkbox ON or OFF to show or suppress the display of data for a particular candidate.
- Click EXIT to return to the ELINT CANDIDATES window.

ELINT CANDIDATES Pop-Up Menu

In addition to the options described in *Summary of Common Operations* or that function as buttons with the same name (UPDATE, GEO PLOT, PARAM VS TIME, SCATTER PLOT, SELECT ALL, UNSELECT ALL, and EXIT), the ELINT CANDIDATES pop-up menu also includes:

COLOR

Use this pop-up option to change the color of a selected track in the scroll list.

1. Select a track from the list and choose COLOR to open the LIST window of colors.
2. Click the color choice. The color of the track is changed in the scroll list.

Note: Double-clicking on a track also displays the LIST window.

EXCLUDE CANDS

If one or more candidates definitely do not represent the reference track, remove them from the list and recalculate the ELINT statistics based on the remaining candidates only.

1. Select the candidates to exclude from the list.
2. Choose EXCLUDE CANDS.
3. The remaining candidates are sent back through the correlator and the scores are recalculated.

RESTORE CANDS

Use RESTORE CANDS to restore candidates that were removed with the EXCLUDE CANDS option. When this option is used, candidates are sent back through the correlator and the scores are recalculated.

11.22.5 ELINT AMBIGUITY

Use the ELINT AMBIGUITY option to display a summary of all ELINT ambiguities in the track database.

- Select ELINT AMBIGUITY from the TRACK SUMMARIES cascading menu to open the ELINT AMBIGUITY SUMMARY window.
- This window shows only those ELINT tracks that are ambiguities.
- Fields and functions in this window are the same as those in the EMITTER TRACK SUMMARY window. See the *ELINT Track* section for details on these options.

11.22.6 SELECTED ELINT

Use the SELECTED ELINT option to present a summary of all selected ELINT tracks.

- Select the ELINT tracks from the display.
 - If no tracks are selected, the DATABASE SEARCH window opens.
- Choose the SELECTED ELINT option from the TRACK SUMMARIES cascading menu to open the SELECTED EMITTER SUMMARY window.
- Fields and functions in this window are the same as those in the EMITTER TRACK SUMMARY window. See the *ELINT Track* section for details on these options.

11.22.7 ACOUSTIC/SUB

Use the ACOUSTIC/SUB option to present a summary of all acoustic tracks in the track database.

To access this window: TRACKS pull-down menu : TRACK SUMMARIES cascading menu : ACOUSTIC/SUB option : ACOUSTIC TRACK SUMMARY window (Figure 11.22-11).

ACOUSTIC TRACK SUMMARY													
NUMBER OF ENTRIES: 0006													
LTN	GROUP	TRADEMARK LEVEL	CLASS	TYPE	CC	CAT	THR	SCONUM	SENSOR	NRPT	BRG	RNG	TLATE
B00001	T4022	DESIG123	SOVREMENNY	DDG	UR	NAV	HOS	.....	ELINT	0001	337	8273	999:59+
B00002	T4031	DESIG0020	TYPE II	.....	UR	SUB	UAE	.....	SOSUS	0004	...	...	999:59+
B00003	T4032	CASE0030	VICTOR III	SSN	UR	SUB	UAE	.....	ELINT	0002	324	8685	999:59+
B00004	T4033	DESIG P004	DELTA III	SSBN	UR	SUB	UAE	.....	SOSUS	0003	...	...	999:59+
B00005	T4009	DESIG 5555	UNEQUATED	.....	..	SUB	UNK	.....	NTDS	0001	304	6826	999:59+
B00006	T4033	TGT 0004	DELTA III	SSBN	UR	SUB	UAE	.....	SOSUS	0001	...	...	999:59+

EDIT DELETE ASSOC UN-ASSOC RESOLVE COMPARE REFRESH EXIT

Figure 11.22-11 Acoustic Track Summary

ACOUSTIC TRACK SUMMARY Window Buttons

EDIT—a track.

1. Select one or more tracks.
2. Click EDIT to open the EDIT window. (This is the same window that appears when using the EDIT option.)

3. If multiple tracks were selected, the NEXT and PREV buttons will be active in the EDIT window. Use these buttons to view the next or previous track from the selected group.
4. Click EXIT to return to the ACOUSTIC TRACK SUMMARY window.

DELETE—a track.

1. Select one or more tracks.
2. Click DELETE. The selected tracks are removed from the system.

ASSOC—associate acoustic tracks of different levels.

1. Select two tracks.
 - The tracks must have different trademark levels.
 - The track with the higher-level trademark will be the “parent” of the association.
2. Click ASSOC to associate the acoustic tracks.

UN-ASSOC—break the association between a selected acoustic track and its Platform parent track, or between acoustic tracks of different levels.

RESOLVE—view the candidates for a selected track and resolve whether they should be merged.

1. Select one track.
2. Click RESOLVE to open the COMPARE window.
 - If there is more than one candidate, the NEXT and PREV buttons are active.
3. Use the options in the COMPARE window to resolve whether the track and its candidates should be merged. (See the *COMPARE* section for more information.)

COMPARE—two or more selected tracks and resolve whether they should be merged.

1. Select two or more tracks from the list.
2. Click COMPARE to bring up the SELECT TRACK window.
3. Choose a master or slave from this window.
4. Click OK to open the COMPARE window for the selected tracks.
 - Use the options in the window to determine whether the selected tracks should be merged.
 - See the *COMPARE* section for more information.

REFRESH—update the acoustic track summary list to include new tracks that have come into the system since this option was selected.

EXIT—the option and close the window.

ACOUSTIC TRACK SUMMARY Window Pop-up Menu Options

Options on the pop-up menu perform as described in *Summary of Common Operations* or function as buttons with the same names described elsewhere in this section: ASSOC, COMPARE, DELETE, EDIT, EXIT, PRINT ALL, PRINT SELECTED, REFRESH, RESOLVE, SELECT ALL, UN-ASSOC, and UNSELECT ALL.

ACOUSTIC TRACK SUMMARY Window Fields

The ACOUSTIC TRACK SUMMARY window scroll list contains the following fields of information for each acoustic track selected:

LTN

Local track number.

GROUP

Parent Platform track number associated with this acoustic track.

TRADEMARK LEVEL

Trademark for the track. Trademarks of different levels are indented within this column to distinguish the levels:

CASE acoustic track—left justified with the TRADEMARK LEVEL column heading.

DESIG acoustic track—indented three characters.

TGT acoustic track—indented six characters.

CONT or POD acoustic track—indented nine characters.

CLASS

Ship class.

TYPE

Ship type of the track, such as DDG, CV, CG, or SSN.

CC

Two-letter code identifying the country associated with the track.

CAT

Track category (SUB, NAV, etc.).

THR

Threat classification code (FRI, HOS, NEU, etc.).

SCONUM

Ship control number.

SENSOR

Device or method that detected the track (for example, VIS=visual sighting).

NRPT

Number of reports received for the track.

BRG

Bearing of the track from Ownship.

RNG

Range of the track from Ownship, in nautical miles.

TLATE

Amount of time that has elapsed since the last report for the track.

11.22.8 UNIT TRACK

Use the UNIT TRACK option to show a summary of all unit tracks in the track database.

To access this window: TRACKS pull-down menu : TRACK SUMMARIES cascading menu : UNIT TRACK option : UNIT TRACK SUMMARY window (Figure 11.22-12).

TRACK NAME	LTN	CC	CAT	THR	SRV	ECHELON	PLATFM	ORG TYPE	STR	EMBARKED	BRG	RANGE	TLATE
UNKNOWN	U00001	..	UNK	UNK	JNT	AIRRGT	UINTEL	AMPHASLT	...	.....	335	04506	023:35

Figure 11.22-12 Unit Track Summary Window

UNIT TRACK SUMMARY Window Buttons

EDIT—a track.

1. Select one or more tracks.
2. Click EDIT to open the EDIT window. (This is the same window that appears when using the EDIT option.)
3. If multiple tracks were selected, the NEXT and PREV buttons will be active in the EDIT window. Use these buttons to view the next or previous track from the selected group.
4. Click EXIT to return to the UNIT TRACK SUMMARY window.

DELETE—a track.

1. Select one or more tracks.
2. Click DELETE. The selected tracks are removed from the system.

XMIT—transmit a track to another location.

1. Select one or more tracks.
2. Click XMIT to open the XMIT FORMAT window and start the transmission process. See XMIT from the TRACKS pull-down menu for details about the XMIT FORMAT window.

RESOLVE—view the candidates for a selected track and determine whether they should be merged.

1. Select one track.
2. Click RESOLVE to open the COMPARE window.
 - If there is more than one candidate, the NEXT and PREV buttons are active.
3. Use the options in the COMPARE window to resolve whether the track and its candidates should be merged. (See the *COMPARE* section for more information.)

COMPARE—two or more selected tracks and determine whether they should be merged.

1. Select two or more tracks from the list.
2. Click COMPARE to open the SELECT TRACK window.
3. Choose a master or slave from this window.
4. Click OK to open the COMPARE window for the selected tracks.

- Use the options in the window to determine whether the selected tracks should be merged.
- See the *COMPARE* section for more information.

REFRESH—update the track summary list to include new tracks that have come into the system since this option was selected.

REPROCESS—send a track through the correlator again. Use when fields that affect correlation are edited.

1. Select one or more tracks.
2. Click REPROCESS.

EXIT—the option and close the window.

UNIT TRACK SUMMARY Window Fields

The UNIT TRACK SUMMARY window lists the number of entries in the unit track database, as well as a summary of each track. The following fields of information appear for each track:

TRACK NAME

Unit name for the track.

LTN

Local track number.

CC

Two-letter code identifying the country associated with the track.

CAT

Track category (AIR, FSH, LAND, MER, etc.).

THR

Threat classification code (FRI, HOS, NEU, etc.).

SRV

Service code.

ECHELON

Organizational level.

PLATFM

Platform type.

ORG TYPE

Organization type.

STR

Strength of the unit.

EMBARKED

Platform on which the unit is embarked.

BRG

Bearing of the track from Ownship.

RANGE

Range of the track from Ownship, in nautical miles.

TLATE

Amount of time that has elapsed since the last report for the track.

11.22.9 UNIT AMBIGUITY

Use the UNIT AMBIGUITY option to show a summary of all unit ambiguities in the track database.

Select UNIT AMBIGUITY from the TRACK SUMMARIES cascading menu to open the UNIT AMBIGUITY SUMMARY window.

This window presents a summary of only those unit tracks that are ambiguities. Buttons in this window perform the same functions as those available from the UNIT TRACK SUMMARY window. (See *TRACK SUMMARY* for details on these options.)

11.22.10 SELECTED UNIT

Use the SELECTED UNIT option to show a summary of all selected unit tracks.

Choose SELECTED UNIT from the TRACK SUMMARIES cascading menu to open the SELECTED UNIT SUMMARY window.

Fields and functions for this window are the same as those available from the UNIT TRACK SUMMARY window. (See *TRACK SUMMARY* for details on these options.)

11.22.11 NIPS TRACK

Note: The NIPS TRACK option is available only on UB workstations that are connected directly to NIPS.

Use the NIPS TRACK option to display a summary of all NIPS associated tracks in the track database. A track can be associated with a NIPS data element by using the NIPS UPDATE option from the TRACK pop-up menu.

To access this window: TRACKS pull-down menu : TRACK SUMMARIES cascading menu : NIPS TRACK option : NIPS TRACK SUMMARY window (Figure 11.22-13).

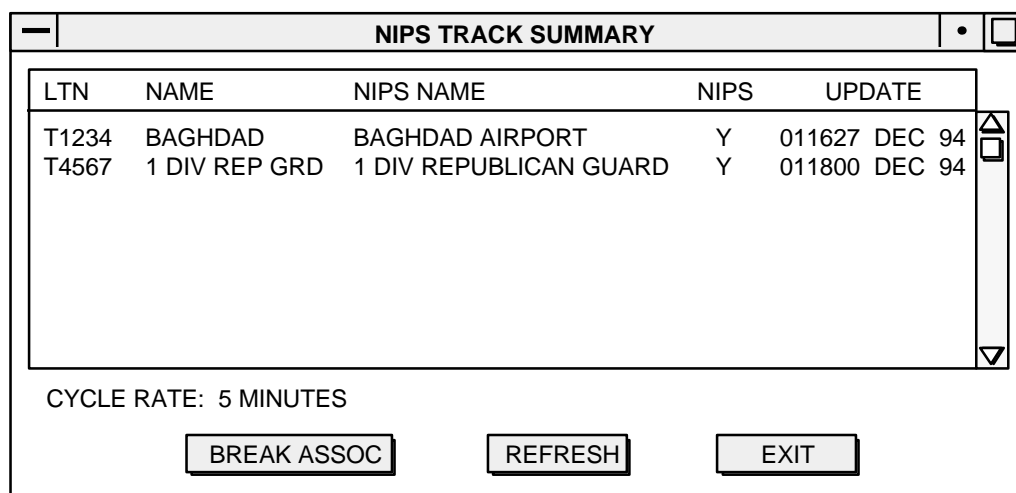


Figure 11.22-13 NIPS Track Summary Window

NIPS TRACK SUMMARY Window Buttons

BREAK ASSOC—break a NIPS association.

1. Select the track to break from the NIPS association.
2. Click BREAK ASSOC.
 - When an association is broken, the system stops sending updates to NIPS for the selected track.
 - Both the UB track and the associated NIPS data element remain in their respective databases.

REFRESH—update the NIPS TRACK SUMMARY window to include new NIPS track information received since this option was selected.

EXIT—the option and close the window.

NIPS TRACK SUMMARY Pop-Up Menu

Options available on the NIPS TRACK SUMMARY pop-up menu perform as described in *Summary of Common Operations* or function as window buttons with the same name: ARCHIVE DB, BREAK ASSOC, EXIT, REFRESH, RESTORE DB, SELECT ALL, and UNSELECT ALL.

NIPS TRACK SUMMARY Window Fields

The following fields are displayed for each NIPS associated track:

LTN

Local track number for the UB track.

Note: Tracks that no longer exist in the UB track database, but were associated with a NIPS data element, are listed in white. The LTN and NAME fields are blank.

NAME

Name of the UB track.

NIPS NAME

Name of the associated NIPS data element.

NIPS

Y—NIPS still holds the track,
N—does not hold the track.

UPDATE

DTG when the last update was sent to NIPS.

CYCLE RATE

Amount of time between UB updates being sent to the NIPS database.
To change this setting, enter a new number of minutes.

11.23 TRACK TABLES

The TRACK TABLES option controls a cascading menu (Figure 11.23-1) with tables that pertain to tracks. This list of tables is “split” into two groups—the top group refers mainly to ELINT tracks; the bottom group relates to other tracks in the system.

About track tables

- Each table contains all possible values for a particular field or function in the system.

- Table values can be manipulated using add, edit, and delete operations.
- Some tables in the cascading menu are accessible from other options within UB. For example, the track EDIT window contains several fields with a list box next to the field. Many of the choices in these list boxes are controlled through TRACK TABLES options.

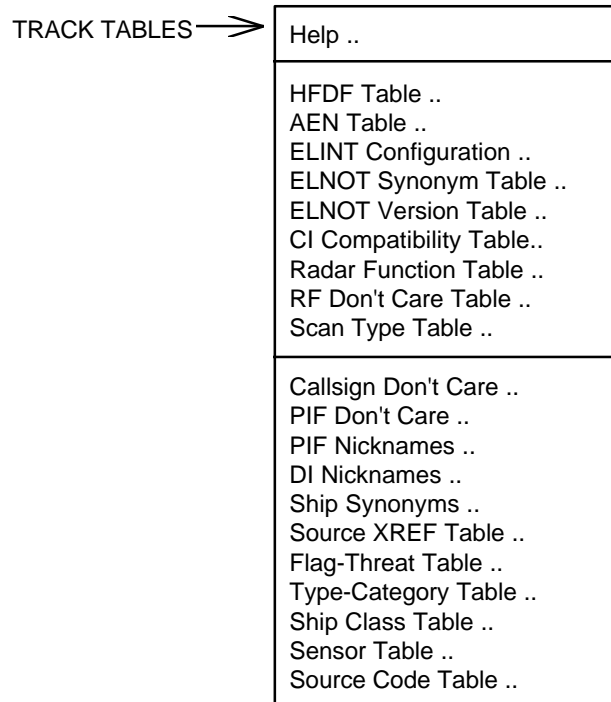


Figure 11.23-1 Track Tables Cascading Menu

11.23.1 HFDF TABLE

The HFDF TABLE option is used to maintain a database of High Frequency Direction Finder (HFDF) stations and their locations. In particular, many options within the TDAs pull-down menu use HFDF station information.

Select HFDF TABLE from the TRACK TABLES cascading menu to open the HFDF STATION TABLE window (Figure 11.23-2).

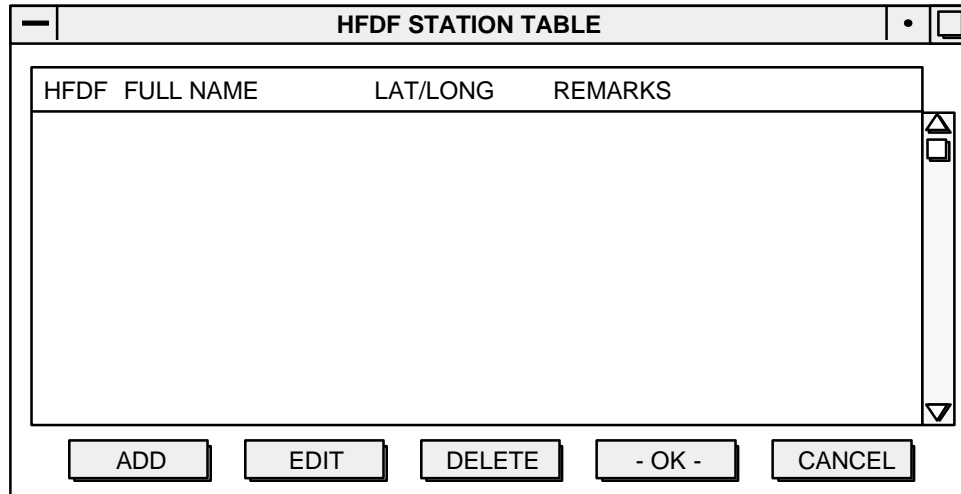


Figure 11.23-2 HFDF Station Table Window

HFDF STATION TABLE Window Buttons

ADD—a HFDF station. Described in *ADD an HFDF Station*.

EDIT—a HFDF station record.

1. Select the record from the HFDF STATION TABLE window.
2. Click **EDIT** to open the **EDIT HFDF STATION** window, which is functionally equivalent to the **ADD HFDF STATION** window.
3. Click **OK** to save changes or click **CANCEL** to discard changes. Clicking either button returns to the HFDF STATION TABLE window.
4. Changes made appear in the HFDF STATION TABLE window, but are not permanently saved until **OK** has been clicked from this window.

DELETE—one or more HFDF station records.

1. Click to select the records from the HFDF STATION TABLE window.
2. Click **DELETE** to open an **ANSWER PLEASE** window.
3. Click **YES** at the “Are you sure you wish to delete xxx item(s)?” Or, click **NO** to stop the delete action.

OK—accept the entry. Although new data is shown in the HFDF STATION TABLE window, it is not permanently saved until **OK** is clicked from this window.

CANCEL—discard the entry and exit the HFDF STATION TABLE window.

11.23.1.1 Add an HFDF Station

Click ADD to open the ADD HFDF STATION window (Figure 11.23-3).

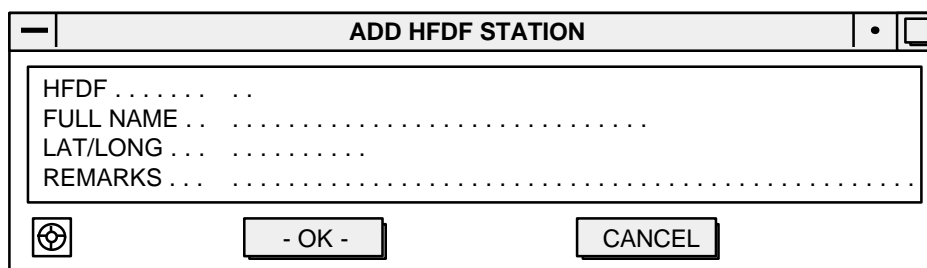


Figure 11.23-3 Add HFDF Station Window

Enter information into the following fields.

HFDF

Two-character HFDF code to identify the HFDF station.

FULL NAME

Full name of the HFDF station.

LAT/LONG

Latitude and longitude position for the HFDF station. Enter the LAT/LONG position from the keyboard, or automatically by clicking a point on the tactical display.

REMARKS

Enter any remarks about the HFDF station.

11.23.1.2 HFDF STATION TABLE Pop-Up Menu

Options available on the HFDF STATION TABLE pop-up menu (ADD, EDIT, DELETE, OK, CANCEL, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and EXIT) perform as described in *Summary of Common Operations* or function as window buttons with the same name.

11.23.2 AEN TABLE

Use the AEN TABLE option to maintain a table of Arbitrary ELINT Notation (AEN) information.

Note: The AEN TABLE is described in greater detail in the *JOTS II Classified Supplement*. Refer to that document for more information about this option.

Select AEN TABLE from the TRACK TABLES cascading menu to open the AEN TABLE window (Figure 11.23-4).

KEY1	KEY2	FILTER	COR	CI	TBMTYP	UNIT NAME	TYPE	CLASS	CAT	THR	ALERT	REMARKS
------	------	--------	-----	----	--------	-----------	------	-------	-----	-----	-------	---------

ADD EDIT DELETE - OK - CANCEL

Figure 11.23-4 AEN Table Window

AEN TABLE Window Buttons

ADD—an AEN entry. Described in *Add an AEN Entry*.

EDIT—an AEN record.

1. Select the record from the AEN TABLE window.
2. Click EDIT to open the EDIT AEN window—which is functionally equivalent to the ADD AEN window.
4. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the AEN TABLE window.
5. Changes appear in the AEN TABLE window, but they are not permanently saved until OK has been clicked from the AEN TABLE window.

DELETE—an AEN record.

1. Select the record(s) from the AEN TABLE window.
2. Click DELETE. The record is deleted.
3. Multiple records can be selected by the same method.

OK—save record changes. Clicking OK closes the AEN TABLE window and exits the option.

CANCEL—discard all changes and exit the AEN TABLE option.

AEN TABLE Scroll List

The AEN TABLE window contains a scroll list of all AEN records in the system. Window fields are determined by the information entered in the ADD AEN window. See *ADD AEN Window Fields* for detailed information.

AEN entries are color-coded according to the following threat status:

Light Blue	=	FRI, UAF
Red	=	HOS, UAE
Green	=	NEU
Yellow	=	UNK, UEV

11.23.2.1 Add an AEN Entry

Click ADD to open the ADD AEN window (Figure 11.23-5).

The screenshot shows a window titled "ADD AEN". It contains the following fields and controls:

- CI
- KEY1
- KEY2
- UNIT NAME
- ☐ UNIT TYPE
- ☐ CLASS
- ☐ CATEGORY
- ☐ THREAT
- ☐ ALERT
- REMARKS
- FILTER: ☒ NO, ☐ YES
- CORRELATE: ☒ NO, ☐ YES
- TBM TYPE: ☒ NONE, ☐ LAUNCH, ☐ OBSERV, ☐ IMPACT
- Buttons: "- OK -" and "CANCEL"

Figure 11.23-5 Add AEN Window

ADD AEN Window Fields

Enter information into the following fields, or click the list box in front of the UNIT TYPE, CLASS, CATEGORY, THREAT, and ALERT fields to show codes available for selection. Highlight the code and click the left trackball button to automatically enter the code into these fields.

CI

Correlation index.

KEY1

First identifier key to uniquely define the object.

KEY2

Second identifier key, if needed, to define the object.

UNIT NAME

Unit name.

UNIT TYPE

Unit type.

CLASS

Class.

CATEGORY

Category.

THREAT

Threat code.

ALERT

Alert code.

REMARKS

Enter any remarks about the AEN entry.

FILTER

Click the YES diamond knob to discard reports that enter the system with an ELNOT value that matches the value entered in the ELNOT field in this window.

Click the NO diamond knob and the report will remain in the system.

Note: ELINT filtering may also be performed from the INPUT GEO FILTERS option from the COMMS menu.

CORRELATE

Click the YES diamond knob to allow reports that match the criteria for this record to go through the correlation process.

Click the NO diamond knob to prevent reports that match the criteria for this record from going through the correlation process.

TBM TYPE

Enter the Theatre Ballistic Missile type, if applicable:

- None
- Launch
- Observed
- Impact

Note: Only Observe types have an additional data window available through a pop-up menu. If the TBM type is “Observe,” select the DATA option from the ADD AEN window’s pop-up menu. If this option is selected for types other than Observe, a warning window is displayed with the information that “only Observe types have added data.”

OK—click to accept the entries. Data is not permanently saved until OK has been clicked from this window.

CANCEL—click to discard entries. Clicking either button returns to the AEN TABLE window.

11.23.2.2 AEN TABLE Pop-Up Menu

Options available on the AEN TABLE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.3 ELINT CONFIGURATION

The ELINT CONFIGURATION window allows an operator to view the various parameters that affect ELINT correlation.

Note: ELINT configuration parameters are preset in the delivered software. Settings can be changed only by an operator experienced with the workings of the correlation algorithm and who has been assigned a specific role and user account by the security administrator.

Select ELINT CONFIGURATION from the TRACK TABLES cascading menu to open the ELINT CONFIGURATION window (Figure 11.23-6).

ELINT CONFIGURATION (VIEW ONLY)	
AUTO-DELETE PROCESSING <input checked="" type="checkbox"/> EMITTER AMBIGUITY AUTO-DELETE 00:08:00	
REDUNDANT REPORT PROCESSING <input type="checkbox"/> ELINT REDUNDANT INTERVAL (MIN): 10	
EQUIVALENCE PROCESSING <input type="checkbox"/> L0000 <input checked="" type="checkbox"/> JN <input type="checkbox"/> KOP	
ELNOT PROCESSING <input checked="" type="checkbox"/> USE PRIMARY ELNOT ONLY <input type="checkbox"/> USE PRIMARY AND SECONDARY ELNOTS	
ALGORITHM CONTROL AND COST FACTORS <input type="checkbox"/> USE PARAMETER UNCERTAINTIES <input checked="" type="checkbox"/> BAYES AMBIGUITY 01.000 FRAGMENTATION 03.333 MISSED INITIATION 03.333 MISSED UPDATE 03.333	
MTST PARAMETERS ABERRANCY LOOP(S) 3 NUMBER OF REPORTS 12	
<div>OK</div> <div>CANCEL</div>	

Figure 11.23-6 ELINT Configuration Window

ELINT CONFIGURATION Window Fields

EMITTER AMBIGUITY AUTO-DELETE

Specifies in days, hours, and minutes how long an emitter ambiguity will remain in the track database before automatic deletion.

ELINT REDUNDANT INTERVAL

Specifies the time difference (in minutes) between compatible ELINT reports before they are considered redundant. Redundant reports are *not* stored in the track's history of reports.

EQUIVALENCE PROCESSING

Specifies categories of ELNOTs that are considered equivalent for correlation purposes. A highlighted checkbox indicates equivalence processing is active for that category. Categories are as follows:

L000—if checked, reports with an ELNOT value of L000 will be considered candidates for correlation with every ELINT track in the database.

JN—if checked, reports with ELNOTs that begin with “J” or “N” will be considered candidates for correlation with every other ELINT track beginning with J or N in the database.

KOP—if checked, reports with ELNOTs that begin with K, O, or P will be considered candidates for correlation with every other ELINT track beginning with K, O, or P in the database.

ELNOT PROCESSING

Indicates whether only the primary or both the primary and secondary ELNOTs are used in the correlation process.

ALGORITHM CONTROL AND COST FACTORS

Indicates which algorithm is being used to correlate reports and specify algorithm parameter settings.

MTST PARAMETERS

Parameters affect the MTST algorithm in computing track position, course, and speed.

CANCEL—exit the window. Note: Under normal operating condition, the OK button is ghosted, as changes can be made only by an operator with a specific user role and account.

Elint Configuration Pop-up Menu

In addition to the options described in *Summary of Common Operations* (OK and CANCEL), the ELINT CONFIGURATION pop-up menu also includes:

PARAMETER UNCERTAINTY TABLE

The PARAMETER UNCERTAINTY TABLE window (Figure 11.23-7) contains a list of two-character Correlation Indexes (CI) for certain deviation values.

For example: An ELINT report is received (AA) that does not contain any standard deviations—uncertainties reported for the parameters. In this case, the default from the PARAMETER UNCERTAINTY TABLE is used *if* the USE PARAMETER UNCERTAINTIES checkbox is toggled ON in the ELINT CONFIGURATION window.

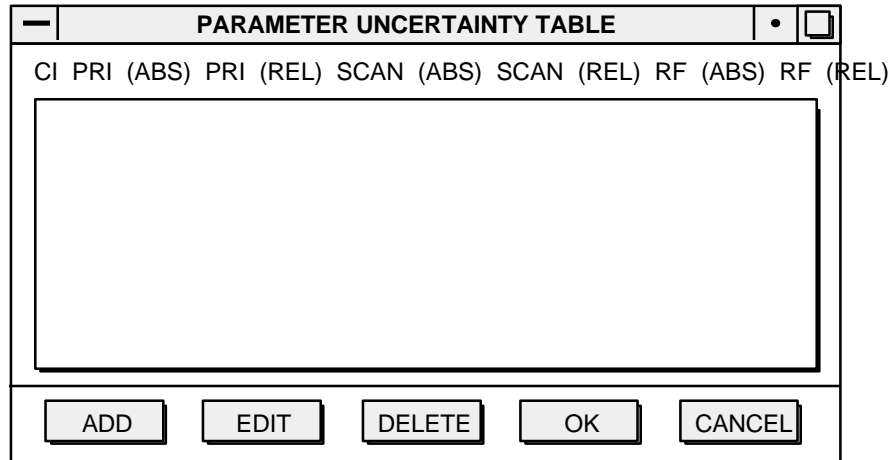


Figure 11.23-7 Parameter Uncertainty Table Window

PARAMETER UNCERTAINTY TABLE Note: An operator must be given permission (via the assigned account role/group) to manipulate information in this window. Without assigned permission, when this window is opened information is view only and all buttons (except CANCEL) are ghosted.

11.23.4 ELNOT SYNONYM TABLE

Use the ELNOT SYNONYM TABLE option to maintain a list of synonyms for ELINT reports.

About the ELNOT SYNONYM TABLE

- When an ELINT report is transmitted, data in the ELNOT field is used to determine whether or not the report is an update to an existing track.
 - Occasionally, a report intended as an update for an existing track will have a different value in the ELNOT field than the existing track.
 - Use this option to assign synonyms for existing ELNOT values, so that reports received with the synonym in the ELNOT field will update the correct track.
- The ELNOT SYNONYM TABLE contains a high and low range for the Pulse Repetition Interval (PRI), the Scan Rate, and the Radio Frequency for each synonym defined in the table.
- If a synonym is received into the system, the PRI, Scan Rate, and Radio Frequency values must be within the ranges listed for the synonym to correlate with its corresponding ELNOT.

Select ELNOT SYNONYM TABLE from the TRACK TABLES cascading menu to open the ELNOT SYNONYM TABLE window (Figure 11.23-8).

ELNOT	SYNONYM	PRI (USEC)	SCAN (SPR)	RF (MHZ)	TOT BANDS	
A3332	W4788	0173.5662	0173.5672	90.30 90.31	18066.51 18066.61	2
A374X	V8704	9884.9675	9884.9685	79.81 79.82	52149.04 52149.14	2
A696X	X598W	2769.5283	2769.5293	54.64 54.65	91831.30 91831.40	1
A6981	L9361	2844.8746	2844.8756	62.49 62.50	65666.83 65666.93	1
A724W	A584S	4814.4546	4814.4556	48.79 48.80	22529.45 22529.55	1
B1622	B4163	3764.6690	3764.6700	42.59 42.60	27348.80 27348.90	1
B4176	E775C	5946.3291	5946.3301	47.05 47.06	00238.37 00238.47	3
B4847	S808W	0657.0830	0657.0840	78.63 78.64	42205.27 42205.37	1
B515C	N1959	1108.4437	1108.4447	41.17 41.18	38894.66 38894.76	1
B5703	R9945	9363.7880	9363.7890	69.52 69.53	32422.55 32422.65	2
B594X	H1501	1371.6349	1371.6359	47.42 47.43	28938.41 28938.51	1

Figure 11.23-8 ELNOT Synonym Table Window

ELNOT SYNONYM TABLE Window Buttons

ADD—an ELNOT synonym. Described in *Add an ELNOT Synonym*.

EDIT—an ELNOT synonym record.

1. Select the record from the ELNOT SYNONYM TABLE window.
2. Click EDIT to open the EDIT ELNOT SYNONYM window—which is functionally equivalent to the ADD ELNOT SYNONYM window.
3. Click OK to accept changes, or click CANCEL to ignore any changes. Clicking either button returns to the ELNOT SYNONYM TABLE window.
4. Changes appear in the ELNOT SYNONYM TABLE window, but are not permanently saved until OK has been clicked from the ELNOT SYNONYM TABLE window.

DELETE—an ELNOT synonym record.

1. Select the record (or records) from the ELNOT SYNONYM TABLE window.
2. Click DELETE. The record or multiple records are deleted.

OK—save the changes, closes the window, and exits the ELNOT SYNONYM TABLE window.

CANCEL—discard changes and exit the ELNOT SYNONYM TABLE option.

ON checkbox—click to check the ELNOT synonym table for incoming ELINT reports.

11.23.4.1 Add an ELNOT Synonym

Click ADD to open the ADD ELNOT SYNONYM window (Figure 11.23-9).

— ADD ELNOT SYNONYM • □

STANDARD NAME . . A374X
SYNONYM V8704
PRI LOW 9884.9675 USEC
PRI HIGH 9884.9685 USEC
SCAN LOW 79.81 SPR
SCAN HIGH 79.82 SPR
RF LOW 52149.04 MHZ
RF HIGH 52149.14 MHZ

PRI LOW
PRI HIGH
SCAN LOW
SCAN HIGH
RF LOW
RF HIGH

PRI LOW
PRI HIGH
SCAN LOW
SCAN HIGH
RF LOW
RF HIGH

PRI LOW
PRI HIGH
SCAN LOW
SCAN HIGH
RF LOW
RF HIGH

PRI LOW
PRI HIGH
SCAN LOW
SCAN HIGH
RF LOW
RF HIGH

- OK - CANCEL

Figure 11.23-9 Add ELNOT Synonym Window

ADD ELNOT SYNONYM Window Fields

Enter data for a new ELNOT synonym into the following fields:

STANDARD NAME

ELINT notation for the track.

SYNONYM

Synonym for the ELINT notation in the STANDARD NAME field.

PRI LOW

Low range for the Pulse Repetition Interval (PRI) for the ELINT emission (in microseconds).

PRI HIGH

High range for the Pulse Repetition Interval (PRI) for the ELINT emission (in microseconds).

SCAN LOW

Low range for the Scan Rate for the ELINT emission (in seconds per revolution).

SCAN HIGH

High range for the Scan Rate for the ELINT emission (in seconds per revolution).

RF LOW

Low range of the Radio Frequency for the ELINT emission (in megahertz).

RF HIGH

High range of the Radio Frequency for the ELINT emission (in megahertz).

OK—accept the entries. New data displayed in the ELNOT SYNONYM TABLE window is not permanently saved until OK has been clicked from the ELNOT SYNONYM TABLE window.

11.23.4.2 ELNOT SYNONYM TABLE Pop-Up Menu

Options available on the ELNOT SYNONYM TABLE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.5 ELNOT VERSION TABLE

Use the ELNOT VERSION TABLE option to maintain a list of known emitters and their associated emission parameters. This table is used to screen incoming ELINT reports for correlation purposes.

Warning: In most cases, the data for this table is provided with UB software and does not require editing. Unless there is a definite need, *do not* make any editing changes to this table, as doing so may cause serious correlation problems when processing incoming ELINT reports.

Select the ELNOT VERSION TABLE option from the TRACK TABLES cascading menu to open the ELNOT VERSION TABLE window (Figure 11.23-10).

ELNOT VERSION TABLE

ELNOT	EMITTER NAME	FC	CAT	THR	#	UEQ	OEQ	CBB	RBB	ABB	SP	SBB	RP	DTIME	PTIME	PNRPT
A318Q	DON KAY 00273	CY	NAV	NEU	5	ON	ON	OFF	OFF	OFF	OFF	ON	ON	048:00	012:00	0002
A3750	DON KAY 00109	PM	AIR	UNK	3	ON	ON	ON	ON	ON	ON	ON	OFF	048:00	012:00	0002
A4216	DON KAY 00300	ZH	SUB	HOS	3	ON	ON	ON	OFF	ON	ON	ON	ON	048:00	012:00	0002
A476H	DON KAY 00374	GV	NAV	FRI	5	ON	ON	ON	OFF	OFF	ON	ON	OFF	048:00	012:00	0002
A5203	DON KAY 00499	JU	NAV	UNK	5	ON	ON	ON	OFF	ON	OFF	OFF	OFF	048:00	012:00	0002
A7254	DON KAY 00134	ZT	UNK	NEU	2	ON	ON	ON	OFF	OFF	ON	OFF	ON	048:00	012:00	0002
A7723	DON KAY 00142	RY	NAV	UAF	5	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	048:00	012:00	0002
A7805	DON KAY 00123	WI	MER	UNK	5	ON	ON	OFF	ON	ON	OFF	ON	OFF	048:00	012:00	0002
A788U	DON KAY 00276	GB	NAV	UAE	5	ON	ON	OFF	ON	ON	ON	OFF	OFF	048:00	012:00	0002
A862F	DON KAY 00474	LP	NAV	UNK	3	ON	ON	ON	ON	ON	OFF	OFF	ON	048:00	012:00	0002
B083R	DON KAY 00211	JJ	UNK	FRI	2	ON	ON	OFF	ON	ON	OFF	ON	OFF	048:00	012:00	0002

ADD

EDIT

DELETE

- OK -

CANCEL

Figure 11.23-10 ELNOT Version Table Window

ELNOT VERSION TABLE Window Buttons

ADD—an emitter to the table. Described in *Add an Emitter*.

EDIT—an emitter record.

1. Select the record from the ELNOT VERSION TABLE window.
2. Click EDIT and the EDIT ELNOT VERSION window appears. This window is functionally equivalent to the ADD ELNOT VERSION window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the ELNOT VERSION TABLE window.
4. Changes appear in the ELNOT VERSION TABLE window, but are not permanently saved until OK has been clicked from this window.

DELETE—an emitter record(s).

1. Select the record (or multiple records) from the ELNOT VERSION TABLE window.
2. Click DELETE and the record is deleted.

OK—accept the new emitter data. New data shown in the ELNOT VERSION TABLE window is not permanently saved until OK has been clicked from this window.

CANCEL—discard the data.

ELNOT VERSION TABLE Window Fields

The following fields of information are shown for each emitter in the table:

ELNOT

ELINT notation. This five digit field begins with an alpha character, followed by three numbers, ending with another alpha character.

EMITTER NAME

Radar name (for example, RAY1500, SPN-43, HEADNET).

FC

Emitter function code.

CAT

Category code for the emitter.

THR

Threat code for the emitter.

#

Number of default tolerance versions that exist for this emitter.

UEQ

Status of L0000 equivalence processing for the emitter.

OEQ

Status of KOP/JN equivalence processing for the emitter.

CBB

Whether or not PRI crystal basebanding is used for this emitter.

RBB

Signify whether or not PRI range basebanding is used for this emitter.

ABB

Signify whether or not adaptive basebanding is used for this emitter.

SP

Shows ON if the PROCESS SCAN checkbox is clicked for this emitter or OFF if the checkbox is blank.

SBB

Signify whether or not scan basebanding is used for this emitter.

RP

Shows ON if the PROCESS RF checkbox is clicked for this emitter, or OFF if the checkbox is blank.

DTIME

Disregard time.

PTIME

Autopurge time.

PNRPT

Number of reports used to determine whether to autopurge or not.

Recommendation: Changes to this table should be made *only* by an expert user and only if there is a definite need to make a change. Incorrect changes can lead to serious correlation problems.

11.23.5.1 Add an Emitter

Click ADD to open the ADD ELNOT VERSION window (Figure 11.23-11).

ADD ELNOT VERSION

ELNOT A318Q
 EMITTER DON KAY 00273
 CATEGORY .. NAV
 THREAT NEU
 EMITTER FC

SHORTNAME PREFIX CY
 DISREGARD TIME (HHH:MM) .. 048:00
 AUTOPURGE TIME (HHH:MM) . 000:00
 AUTOPURGE NRPTS 0000

GEO DENSITY .. ☐ LOW ☒ MED ☐ HIGH

PRI BASEBANDING

☒ RANGE BASEBAND

MIN	MAX	SCALE
0000.000000	0599.909000	45.259552
0599.909100	1713.784800	71.721033
1713.784900	2425.208600	54.204811
2425.208700	3656.411700	10.582163
3656.411800	3811.579400	27.864283

ADD EDIT DELETE

☒ CRYSTAL BASEBAND

CRYSTAL 07.708637 USEC
 COUNTDOWN .. 00081
 NOMINAL PRI ... 0000000.0000

☐ ADAPTIVE BASEBAND

SCAN BASEBANDING

☐ ADAPTIVE BASEBAND
☒ RANGE BASEBAND

MIN	MAX	SCALE
00.000	08.630	79.878036
08.630	13.720	46.816212
13.720	14.850	83.332138
14.850	22.990	33.430176

ADD EDIT DELETE

DEFAULT TOLERANCES

PRI TOLERANCE 0000.100000 USEC
 SCAN TOLERANCE .. 00.10 SPR
 RF TOLERANCE 001.0 MHZ

☐ PROCESS SCAN
☒ PROCESS RF
☐ L0000 EQUIVALENCE PROCESSING
☐ KOP/JN EQUIVALENCE PROCESSING
☐ ALERT MESSAGES

VERSIONS

#	PRI (USEC)			SCAN (SPR)			RF (MHZ)		
	LOW	HIGH	TOL	LOW	HIGH	TOL	LOW	HIGH	TOL
1	9605.237000	5159.907600	0000.000000	75.940	55.550	00.000	00000.0	00000.0	00000.0
2	2836.749400	7666.473100	0000.000000	01.6205	32.470	00.000	00000.0	00000.0	00000.0
3	6852.994000	4800.025900	0000.000000	5.460	55.550	00.000	00000.0	00000.0	00000.0
4	0181.808400	7366.615800	0000.000000	86.220	33.680	00.000	00000.0	00000.0	00000.0
5	7082.730500	9882.121600	0000.000000	13.050	66.000	00.000	00000.0	00000.0	00000.0

ADD EDIT DELETE

- OK - CANCEL

Figure 11.23-11 Add ELNOT Version Window

Use the ADD ELNOT VERSION window to enter data for a new emitter.

General Fields (Top of Window)

ELNOT

ELINT notation. This five digit field begins with an alpha character, followed by three numbers, ending with another alpha character.

EMITTER NAME

Radar name (for example, RAY1500, SPN-43, HEADNET).

CATEGORY

Category code for the emitter.

THREAT

Threat status code for the emitter.

EMITTER FC

Emitter Function Code. This two-letter code is used to identify the function of the radar system.

SHORTNAME PREFIX

Short name for the emitter—used as the track label on the tactical display for some systems.

DISREGARD TIME

The amount of time that a report will be considered a candidate when compared to an existing track.

Example: If the disregard time is set to 8 hours, an existing track is 12 hours old, and a new report is 20 minutes old, the new report will not be considered a candidate because it is more than 8 hours later than the previous report.

AUTOPURGE TIME

Enter the autopurge time in this field—hours and minutes. If the last report for an ELINT track is older than this time (and the value in the AUTOPURGE NRPTS field is also met), the track is automatically deleted from the system.

Note: Automatic deletion of ELINT *ambiguities* can be controlled separately from the ELINT CONFIGURATION option (TRACK TABLES cascading menu).

- If the EMITTER AMBIGUITY AUTO DELETE checkbox is clicked and a time setting entered in the ELINT CONFIGURATION window, ELINT ambiguities are automatically deleted if their most recent report is older than the time specified.
- Settings in the ELINT CONFIGURATION window take precedence over settings in the AUTOPURGE TIME and AUTOPURGE NRPTS fields for ELINT ambiguities.

AUTOPURGE NRPTS

Number of reports needed to keep the track in the system. If the number of reports for an ELINT track is less than the number entered

here (and the value in the AUTOPURGE TIME field is also met), the track is automatically deleted from the system.

Note: Automatic deletion of ELINT *ambiguities* can be controlled separately from the ELINT CONFIGURATION option (TRACK TABLES cascading menu).

- If the EMITTER AMBIGUITY AUTO DELETE checkbox is clicked and a time setting entered in the ELINT CONFIGURATION window, ELINT ambiguities are automatically deleted from the system if their most recent report is older than the time specified.
- Settings in the ELINT CONFIGURATION window take precedence over settings in the AUTOPURGE TIME and AUTOPURGE NRPTS fields for ELINT ambiguities.

GEO DENSITY

Click one of the GEO DENSITY diamond knobs to define whether the track is being viewed in a low, medium, or high density environment.

Example: If the track is in port, the HIGH diamond knob should be clicked. If in open ocean, the LOW diamond knob should probably be clicked. The diamond knob chosen is taken into consideration when tracker track calculations are performed for the track.

PRI BASEBANDING Box

Contains RANGE BASEBAND and CRYSTAL BASEBAND diamond knobs and an ADAPTIVE BASEBAND checkbox. Use these fields to:

- Set values for the PRI basebanding calculations.
- Establish a common pulse repetition interval to view the emitter.

If the RANGE BASEBAND diamond knob is selected:

Click ADD to open the ADD PRI BASEBAND RANGE window and enter values to set PRI ranges and scales for basebanding.

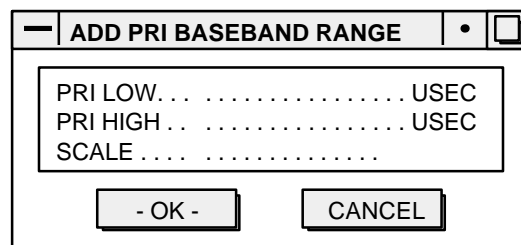


Figure 11.23-12 Add PRI Baseband Range Window

Enter data into the following fields to add a PRI range for the emitter being defined:

PRI LOW

Low range for the Pulse Repetition Interval (PRI) for the ELINT emission (in microseconds).

PRI HIGH

High range for the Pulse Repetition Interval (PRI) for the ELINT emission (in microseconds).

SCALE

Enter a number as a scale for PRI basebanding for the range being defined. The number entered is multiplied with the actual PRI value to determine the basebanded PRI value.

OK—accept the data, or click CANCEL to discard it. Clicking either button returns to the ADD ELNOT VERSION window.

If the CRYSTAL BASEBAND diamond knob is selected,:

Enter values into the following fields:

CRYSTAL

PRI value for the ELINT emission (in microseconds).

COUNTDOWN

Countdown value to be used for the crystal baseband PRI calculations.

NOMINAL PRI

Baseband value for the PRI. This value is automatically calculated and cannot be edited.

If the ADAPTIVE BASEBANDING checkbox is selected:

The data is run through the crystal baseband and adaptive baseband calculations to determine the best fit.

1. Click the ADAPTIVE BASEBAND checkbox and the crystal baseband and adaptive baseband values are calculated for the report.
2. The baseband value that best fits the mean value for the average PRI for the track is chosen as the baseband value to be used.
3. View the track's ELINT SUMMARY window to show which baseband method was used.

SCAN BASEBANDING Box

Use the RANGE BASEBAND or ADAPTIVE BASEBAND checkbox to set a common scan rate to view the emitter.

If the RANGE BASEBAND checkbox is selected:

Use the SCAN BASEBANDING scroll list to establish a list of scan ranges and scales. To add a new entry to the list, click ADD to open the ADD SCAN BASEBAND RANGE window (Figure 11.23-13).

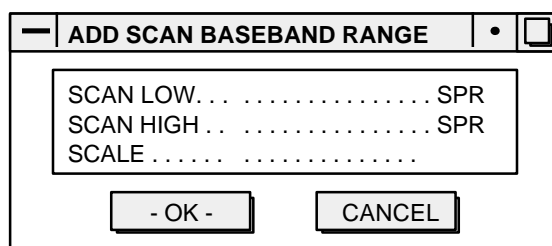


Figure 11.23-13 Add Scan Baseband Range Window

Enter data into the following fields for the emitter being defined:

SCAN LOW

Low range for the Scan Rate for the ELINT emission (in seconds per revolution).

SCAN HIGH

High range for the Scan Rate for the ELINT emission (in seconds per revolution).

SCALE

For the range being defined, enter a number as a scale for scan basebanding. The number entered here will be multiplied with the actual scan value to determine the basebanded scan value.

OK—accept the data, or click CANCEL to discard it. Clicking either button returns to the ADD ELNOT VERSION window.

If the ADAPTIVE BASEBANDING checkbox is selected:

1. Click the ADAPTIVE BASEBAND checkbox.
2. Range baseband and adaptive baseband values are automatically calculated for the report.
3. The baseband value that best fits the mean value for the average scan rate for the track is chosen as the baseband value to be used.

VERSIONS Box

Use the VERSIONS box to build multiple default tolerances for specified ranges of PRI, Scan Rate, and RF—in combination. Raw values for these fields are used for this table, not the basebanded values.

To use default tolerance ranges, the values for an incoming ELINT report must fall within all three ranges defined in this window.

Click ADD to open the ADD ELNOT VERSION window (Figure 11.23-14) and add a new default tolerance range.

VERSION	1
PRI LOW	USEC
PRI HIGH	USEC
PRI TOLERANCE	USEC
SCAN LOW	SPR
SCAN HIGH	SPR
SCAN TOLERANCE	SPR
RF LOW	MHZ
RF HIGH	MHZ
RF TOLERANCE	MHZ

- OK - CANCEL

Figure 11.23-14 Add ELNOT Version Window

Enter data for the new default tolerance range in the following window fields:

VERSION

A number is automatically placed in this field, starting at 1, to indicate the version number of this default tolerance range.

PRI LOW

Low range for the Pulse Repetition Interval (PRI) (in microseconds).

PRI HIGH

High range for the PRI (in microseconds).

PRI TOLERANCE

Default PRI tolerance (in microseconds).

SCAN LOW

Low range for the Scan Rate (in seconds per revolution).

SCAN HIGH

High range for the Scan Rate (in seconds per revolution).

SCAN TOLERANCE

Default Scan Rate tolerance (in seconds per revolution).

RF LOW

Low range for the Radio Frequency (RF) (in megahertz).

RF HIGH

High range for the RF (in megahertz).

RF TOLERANCE

Default RF tolerance (in megahertz).

OK—accept the data, or click CANCEL to discard it. Clicking either button returns to the ADD ELNOT VERSION window.

DEFAULT TOLERANCES Box

Fields in the Default Tolerances box are used to establish tolerance values for the emitter. If the PRI, Scan, and RF values for the report are less than the default tolerances, this indicates that the report is more likely to be an update. If they are greater than the default tolerances, this indicates that the report is more likely to represent a new track. Enter default tolerances in the following fields:

PRI TOLERANCE

Default PRI tolerance (in microseconds).

SCAN TOLERANCE

Default Scan Rate tolerance (in seconds per revolution).

RF TOLERANCE

Default RF tolerance (in megahertz).

ON/OFF Checkboxes

The following checkboxes (below the DEFAULT TOLERANCES box) turn ON or OFF various ELINT procedures:

PROCESS SCAN

Click ON to consider the scan rate value when performing track correlation.

PROCESS RF

Click ON to consider the RF value when performing track correlation.

L0000 EQUIVALENCE PROCESSING

Some ELINT notations are considered equivalent to each other.

Click ON for UB to consider L0000 notations equivalent. If this checkbox is blank, equivalence processing is turned off and the ELINT notations must be exactly the same for there to be a match.

KOP/JN EQUIVALENCE PROCESSING

Some ELINT notations are considered equivalent to each other. For example, the K, O, and P notations are considered equivalent. Click to consider K, O, and P notations and J and N notations equivalent. If this checkbox is blank, equivalence processing is turned off and the ELINT notations must be exactly the same for there to be a match.

ALERT MESSAGES

Click to enable alert messages to be sent for this emitter. Leave this checkbox blank to disable alert messages.

ADD ELNOT VERSION Pop-Up Menu

Options available on the ADD ELNOT VERSION pop-up menu (HELP, OK, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.5.2 ELNOT VERSION TABLE Pop-Up Menu

In addition to the options described in *Summary of Common Operations* (ADD, EDIT, DELETE, OK, CANCEL, PRINT, SELECT ALL, UNSELECT ALL, ARCHIVE, and RESTORE), or that function as buttons with the same name, the ELNOT VERSION TABLE pop-up menu also includes:

PRINT DETAIL

This option is not available for the current version of UB.

11.23.6 CI COMPATIBILITY TABLE

The CI (correlation index) COMPATIBILITY TABLE contains a scroll list of compatible correlation indices (“sets”)—used by the ELINT correlation process.

Note: Information in this table should be changed only on receipt of new CI sets. Changes should be done by personnel experienced in CI processes, as this table affects the screening of redundant ELINT reports and the system’s correlation process.

Select the CI COMPATIBILITY TABLE option from the TRACK TABLES cascading menu to open the CI COMPATIBILITY TABLE window (Figure 11.23-15).

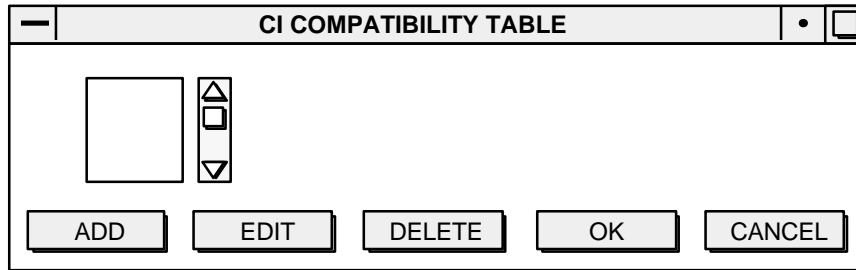


Figure 11.23-15 CI Compatibility Table

CI COMPATIBILITY TABLE Window Buttons

ADD—a new CI compatibility set. Described in *Add CI Compatibility Set*.

EDIT—a selected compatibility set.

1. Select the set in the scroll list.
2. Click EDIT. (Or, double-click the set entry in the scroll list). The EDIT CI COMPATIBILITY SET window opens. This window is functionally equivalent to the ADD CI COMPATIBILITY SET window.
3. Click OK to accept changes to the set, or click CANCEL to discard them.

DELETE—a compatibility set. Select the set from the scroll list and click DELETE.

OK—saves the current table in the scroll list and closes the window.

CANCEL—discards changes made to the table and closes the window. If changes were made and CANCEL is clicked, a warning window appears “. . .do you want to discard the changes?”

11.23.6.1 Add a CI Compatibility Set

Click ADD to open the ADD CI COMPATIBILITY SET window (Figure 11.23-16).

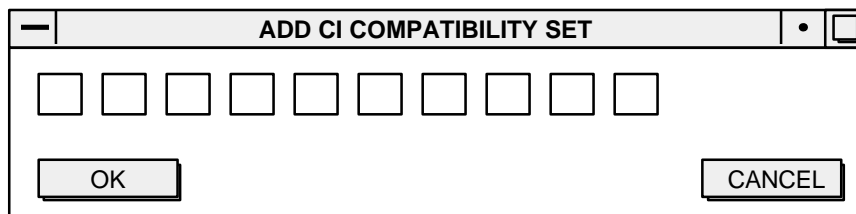


Figure 11.23-16 Add a CI Compatibility Set

Using the ADD CI COMPATIBILITY SET Window

- The window contains 10 “text” fields with a two-character limit per field.
- Up to 10 CIs can be in the set (minimum of two in each set).
- CIs in the new set cannot be members of any other set.
 - For example if the two sets are AA BB CC and DD EE FF GG, a new set containing FF HH II is not allowed as FF is a member of the second set.
- Click OK to save the compatibility set, or click CANCEL to discard the entry.

11.23.6.2 CI COMPATIBILITY SET Pop-Up Menu

In addition to the options described in *Summary of Common Operations* (ADD, EDIT, DELETE, OK, CANCEL, ARCHIVE, and RESTORE), or that function as buttons with the same name, the CI COMPATIBILITY SET pop-up menu also includes:

MASTER DEFAULT

Use this pop-up option to fill the scroll list with the master default table delivered with the software.

11.23.7 RADAR FUNCTION TABLE

Use the RADAR FUNCTION TABLE option to maintain a database of radar function codes. These codes are used with the ELNOT VERSION TABLE option, also found in the TRACK TABLES cascading menu.

Select RADAR FUNCTION TABLE from the TRACK TABLES cascading menu to open the RADAR FUNCTION CODE TABLE window (Figure 11.23-17).

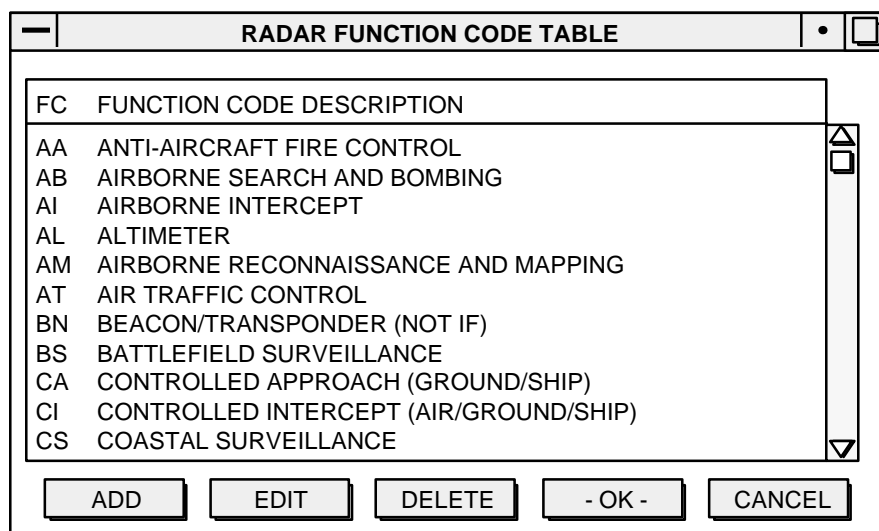


Figure 11.23-17 Radar Function Code Table Window

The RADAR FUNCTION CODE TABLE window lists all the radar function codes in the system.

RADAR FUNCTION CODE TABLE Window Buttons

ADD—a new radar function code. Described in *Add a Radar Function Code*.

EDIT—a radar function code record.

1. Select the record from the RADAR FUNCTION CODE TABLE window.
2. Click EDIT to open the EDIT RADAR FUNCTION CODE window—which is functionally equivalent to the ADD RADAR FUNCTION CODE window.
3. Click OK to accept changes, or click CANCEL to discard the changes. Clicking either button returns to the RADAR FUNCTION CODE TABLE window.

DELETE—a radar function record.

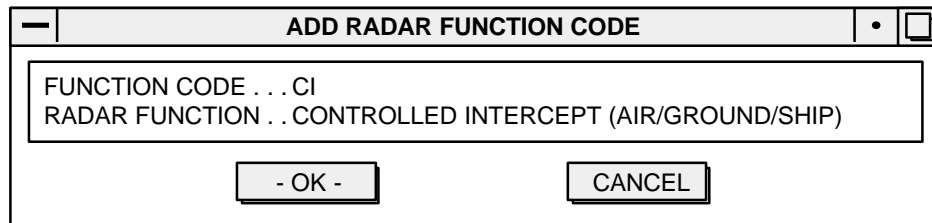
1. Select the record or multiple records from the RADAR FUNCTION CODE TABLE window.
2. Click DELETE. The record or records are deleted.

OK—save the changes to the record. All changes are saved and the RADAR FUNCTION CODE TABLE window closes.

CANCEL—discard all changes and exit the RADAR FUNCTION TABLE option.

11.23.7.1 Add a Radar Function Code

Click ADD to open the ADD RADAR FUNCTION CODE window (Figure 11.23-18).



— ADD RADAR FUNCTION CODE • □

FUNCTION CODE . . . CI
RADAR FUNCTION . . . CONTROLLED INTERCEPT (AIR/GROUND/SHIP)

- OK - CANCEL

Figure 11.23-18 Add Radar Function Code Window

Use the ADD RADAR FUNCTION CODE window to enter new data into the following fields.

FUNCTION CODE

Two-character radar function code to identify the purpose of the radar.

RADAR FUNCTION

Full name of the radar function.

Click OK to accept the entry, or click CANCEL to discard it. Clicking either button returns to the RADAR FUNCTION CODE TABLE window.

11.23.7.2 RADAR FUNCTION CODE TABLE Pop-Up Menu

Options available on the RADAR FUNCTION CODE TABLE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.8 RF DON'T CARE TABLE

Use the RF DON'T CARE TABLE option to create and maintain a file of radio frequencies (bandcenters) that are to be ignored by the UB system track correlator.

When a track report is received with values that match an entry in the RF DON'T CARE TABLE, the table instructs the correlator to ignore the RF field for reports containing any of the RF bandcenters listed.

Select RF DON'T CARE from the TRACK TABLES cascading menu to open the RF DON'T CARE TABLE window (Figure 11.23-19).

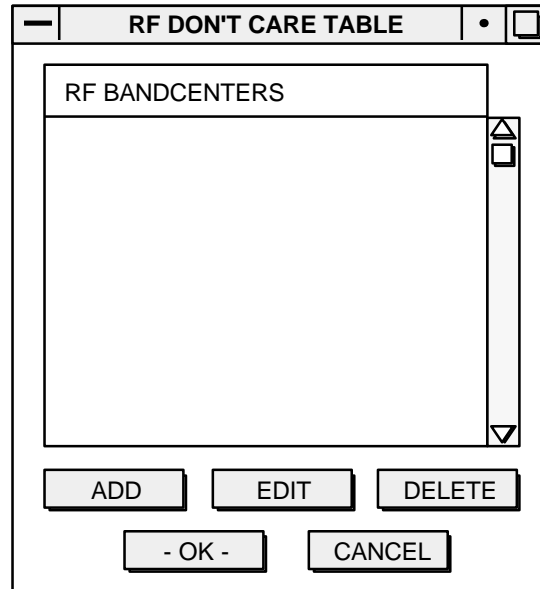


Figure 11.23-19 RF Don't Care Table

RF DON'T CARE TABLE Window Buttons

ADD—a record. Described in *Add Records—RF Don't Care Table*.

EDIT—a record.

1. Select the record line from the RF DON'T CARE TABLE window.
2. Click EDIT to open the EDIT RF BC window—which is functionally equivalent to the ADD RF BC window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the RF DON'T CARE TABLE window.
4. Changes appear in the RF DON'T CARE TABLE window, but are not permanently saved until OK has been clicked from this window.

DELETE—a record.

1. Select the record line or multiple lines from the RF DON'T CARE TABLE.
2. Click DELETE. The record or records are deleted.

OK—save the changes. Data shown is not permanently saved until OK has been clicked from this window.

CANCEL—discard all changes and exit the RF DON'T CARE option.

11.23.8.1 Add Records—RF Don't Care Table

Click ADD to open the ADD RF BC window (Figure 11.23-20).

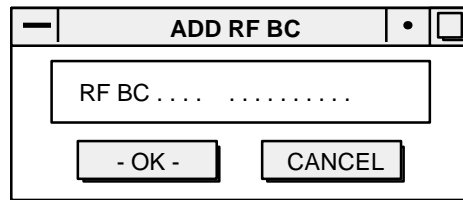


Figure 11.23-20 Add RF BC Window

The ADD RF BC window contains a single data entry field:

RF BC

Enter a radio frequency bandcenter.

Click OK to accept the entry or click CANCEL to discard. Clicking either button returns to the RF DON'T CARE TABLE window.

11.23.8.2 RF DON'T CARE TABLE Pop-Up Menu

Options available on the RF DON'T CARE TABLE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.9 SCAN TYPE TABLE

Use the SCAN TYPE TABLE option to maintain a database of scan type codes. The following codes identify the type of electronic scanner used to gather the information for an ELINT report:

RADB code—a four-character code for the scanner type.

RAD code—a single-letter code.

Scan codes that enter UB in either RADB or RAD format are recognized as the same, and are displayed in RADB format throughout the system.

Select the SCAN TYPE TABLE option from the TRACK TABLES cascading menu to open the SCAN TYPE window (Figure 11.23-21).

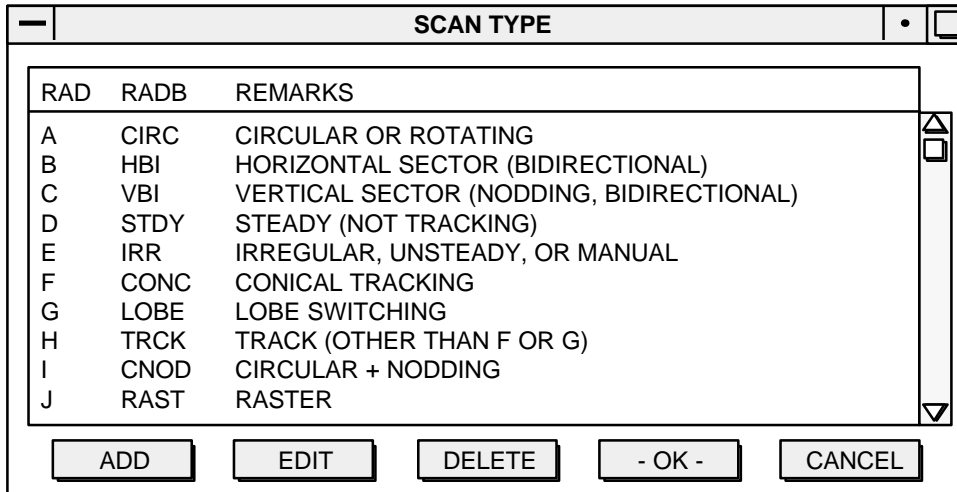


Figure 11.23-21 Scan Type Window

SCAN TYPE Window Buttons

ADD—a scan type code. Described in *Add a Scan Type Code*.

EDIT—a scan type record.

1. Select the record from the SCAN TYPE window.
2. Click EDIT to open the EDIT SCAN TYPE window—which is functionally equivalent to the ADD SCAN TYPE window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the SCAN TYPE window.
4. Changes appear in the SCAN TYPE window, but they are not permanently saved until the OK button has been clicked from this window.

DELETE—a scan type record.

1. Select a record or multiple records from the SCAN TYPE window.
2. Click DELETE. The record or records are deleted.

OK—save the changes. New or changed data shown in the SCAN TYPE window is not permanently saved until OK has been clicked from this window.

CANCEL—discard all changes and exit the SCAN TYPE TABLE option.

11.23.9.1 Add a Scan Type Code

Click ADD to open the ADD SCAN TYPE window (Figure 11.23-22).

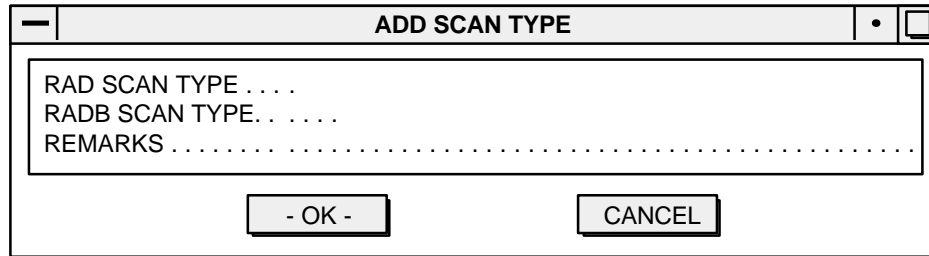


Figure 11.23.-22 Add Scan Type Window

Enter new data into the following fields:

RAD SCAN TYPE

Single character RAD code to identify the scan type.

RADB SCAN TYPE

Four-character RADB code to identify the scan type.

REMARKS

Description for the electronic scanner.

Click OK to accept the entry, or click CANCEL to discard it. Clicking either button returns to the SCAN TYPE window.

11.23.9.2 SCAN TYPE Pop-Up Menu

Options available on the SCAN TYPE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.10 CALLSIGN DON'T CARE

Use the CALLSIGN DON'T CARE option to create and maintain a file of callsigns that are to be ignored by the UB system track correlator.

How the CALLSIGN DON'T CARE option works

- When a track enters the system with values that match an entry in the CALLSIGN DON'T CARE TABLE, the callsign for that track is ignored when the track is being correlated. For example:
 - Reports are received from two different ships, but contain the same callsigns.
 - To prevent the ships from being incorrectly correlated as the same ship on the tactical display, create an entry in the CALLSIGN DON'T CARE TABLE for *one* of the ships

Select CALLSIGN DON'T CARE from the TRACK TABLES cascading menu to open the CALLSIGN DON'T CARE TABLE window (Figure 11.23-23):

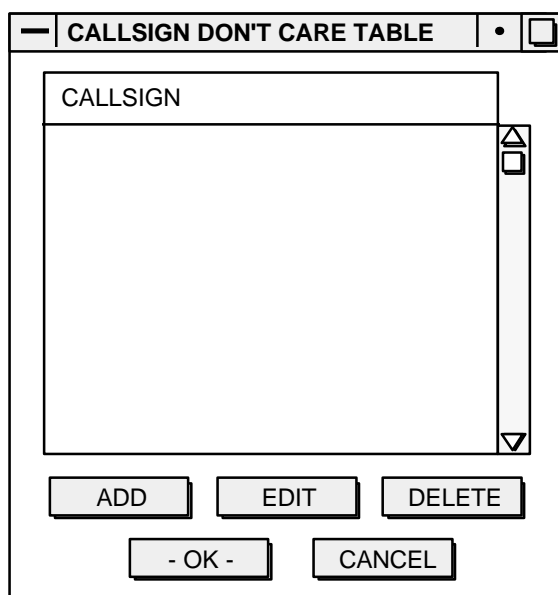


Figure 11.23-23 Callsign Don't Care Table

CALLSIGN DON'T CARE TABLE Window Buttons

ADD—a call sign record. Described in *Add Records—CALLSIGN Don't Care Table*.

EDIT—a record.

1. Select the record line from the CALLSIGN DON'T CARE TABLE window.
2. Click EDIT to open the EDIT CALLSIGN window—which is functionally equivalent to the ADD CALLSIGN window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the CALLSIGN DON'T CARE TABLE window.
4. Changes appear in the CALLSIGN DON'T CARE TABLE, but they are not permanently saved until OK has been clicked from this window.

DELETE—a record.

1. Select the record line (or multiple records) from the CALLSIGN DON'T CARE TABLE.
2. Click DELETE. The record or records are deleted.

OK—save changes to a record. New or changed data shown in the CALLSIGN DON'T CARE TABLE is not permanently saved until OK has been clicked from this window.

CANCEL—discard all changes and exit the option.

11.23.10.1 Add Records—CALLSIGN Don't Care Table

Click ADD to open the ADD CALLSIGN window (Figure 11.23-24) and add data to the table.

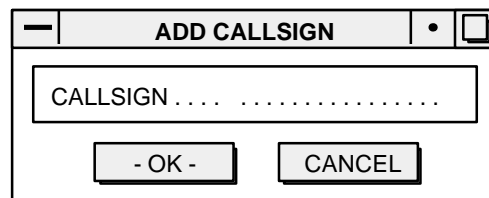


Figure 11.23-24 Add Callsign Window

The ADD CALLSIGN window contains a single data entry field:

CALLSIGN

Enter a callsign.

Click OK to accept the entry or click CANCEL not to accept it. Clicking either button returns to the CALLSIGN DON'T CARE TABLE.

11.23.10.2 CALLSIGN DON'T CARE Pop-Up Menu

Options available on the CALLSIGN DON'T CARE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.11 PIF DON'T CARE

Use the PIF DON'T CARE option to create and maintain a file of PIF (Pseudo-Identification Feature) numbers that are to be ignored by the UB system track correlator.

How the PIF Don't Care option works

- When a track enters the system with a Mode 2 IFF (PIF) value that matches an entry in the PIF DON'T CARE TABLE, the PIF number for that track is ignored when the track is being correlated.

- For example, reports are received from two different ships, but contain the same PIF number.
- An entry can be created in the PIF DON'T CARE TABLE for one of the ships to prevent them from being incorrectly correlated as the same ship on the tactical display.

Select PIF DON'T CARE from the TRACK TABLES cascading menu to open the PIF DON'T CARE TABLE window (Figure 11.23-25).

PIF -PIF	CATEGORY	THREAT
7776-7776	NAV	UNK
7777-7777	NAV	FRI

ADD EDIT DELETE

- OK - CANCEL

Figure 11.23-25 PIF Don't Care Table

This window shows a range of PIF numbers, their category, and threat level. The PIF table filters out the contacts that contain PIF numbers that are not of concern.

PIF DON'T CARE TABLE Window Buttons

ADD—a new PIF record. Described in *Add Records—PIF Don't Care Table*.

EDIT—a record.

1. Select the record line from the PIF DON'T CARE TABLE window.
2. Click EDIT to open the EDIT PDC window—which is functionally equivalent to the ADD PDC window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the PIF DON'T CARE TABLE window.

4. Changes made appear in the PIF DON'T CARE TABLE, but are not permanently saved until OK has been clicked from the PIF DON'T CARE TABLE window.

DELETE—a record.

1. Select the record line (or multiple records) from the PIF DON'T CARE TABLE.
2. Click DELETE. The record or records are deleted.

OK—save changes. New/changed data shown in the PIF DON'T CARE TABLE is not permanently saved until OK has been clicked from this window.

CANCEL—discard all changes and exit the PIF DON'T CARE option.

11.23.11.1 Add Records—PIF Don't Care Table

Click ADD to open the ADD PDC window (Figure 11.23-26).

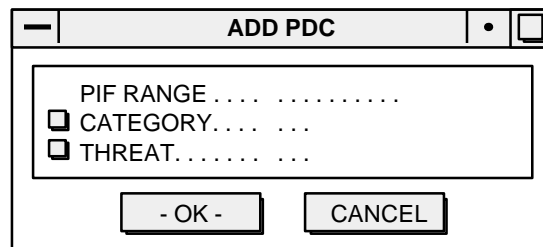


Figure 11.23-26 Add PDC Window

The ADD PDC window contains three data entry fields:

PIF RANGE

Range of PIF numbers.

CATEGORY

Category code for the PIF range.

Click the list box in front of CATEGORY to show category codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

THREAT

Threat code for the PIF range.

Click the list box in front of THREAT to show threat codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

Click OK to accept the entries, or click CANCEL to discard them. Clicking either button returns to the PIF DON'T CARE TABLE.

11.23.11.2 PIF DON'T CARE Pop-Up Menu

Options available on the PIF DON'T CARE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.12 PIF NICKNAMES

Use the PIF NICKNAMES option to assign and maintain a list of PIF numbers and their corresponding nicknames.

About the PIF Nicknames option

- Nicknames are used to quickly identify the type of craft being reported from a Link report. This option is used *for Link tracks only* and has no effect on other track types.
- If a Link track enters the system with a Mode 2 IFF (PIF) number that matches a number in the PIF nickname table, the nickname in the table is assigned to the SHORT NAME field for the track.
- Tracks are frequently plotted on the display based on the SHORT NAME field.
- If a PIF nickname exists, it is shown; if there is no PIF nickname, the NTDS track number is displayed instead.
- A PIF nickname is often more meaningful than the NTDS track number.

Select the PIF NICKNAMES option from the TRACK TABLES cascading menu to open the IFF-2 NICKNAMES window (Figure 11.23-27).

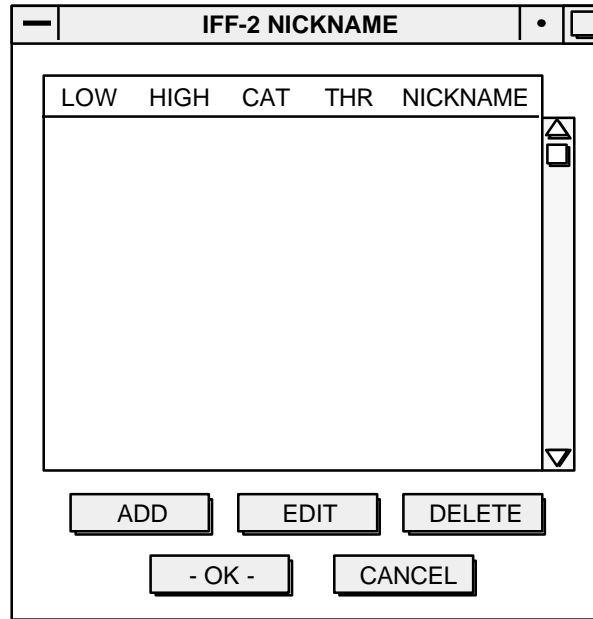


Figure 11.23-27 IFF-2 Nicknames Window

IFF-2 NICKNAME Window Buttons

ADD—a nickname record. Described in *Add PIF Nickname*.

EDIT—a PIF nickname.

1. Select the PIF nickname record line from the IFF-2 NICKNAMES window.
2. Click **EDIT** to open the **EDIT IFF-2 NICKNAME** window—which is functionally equivalent to the **ADD IFF-2 NICKNAME** window.
3. Click **OK** to accept the changes, or click **CANCEL** to discard them. Clicking either button returns to the IFF-2 NICKNAMES window.
4. Changes appear in the IFF-2 NICKNAMES window, but they are not permanently saved until **OK** has been clicked from this window.

DELETE—a PIF nickname record.

1. Select the PIF nickname record (or records) from the IFF-2 NICKNAMES window.
2. Click **DELETE**. The record or records are deleted.

OK—save changes to PIF nickname records. New/changed data shown in the IFF-2 NICKNAMES window is not permanently saved until **OK** has been clicked from this window.

CANCEL—discard all changes and exit the PIF NICKNAMES option.

11.23.12.1 Add PIF Nickname

Click ADD to open the ADD IFF-2 NICKNAME window (Figure 11.23-28).

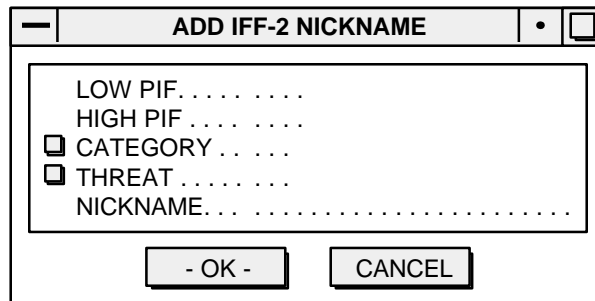


Figure 11.23-28 Add IFF-2 Nickname Window

Use the following fields in the ADD IFF-2 NICKNAME window to enter new data:

LOW PIF

Number on the low end of a range of PIF numbers.

HIGH PIF

Number on the high end of a range of PIF numbers.

CATEGORY

Category code for the PIF range.

Click the list box in front of CATEGORY to show category codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

THREAT

Threat code for the PIF range.

Click the list box in front of THREAT to show category codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

NICKNAME

PIF nickname.

Only one nickname can be entered for the same PIF number. If more than one nickname is entered, a WARNING window appears.

Click OK to accept the entries, or click CANCEL to discard them. Clicking either button returns to the IFF-2 NICKNAMES window.

PIF NICKNAMES Pop-Up Menu

In addition to the options described in *Summary of Common Operations* (ADD, EDIT, DELETE, OK, CANCEL, ARCHIVE, and RESTORE), or that function as buttons with the same name, the PIF NICKNAMES pop-up menu also includes:

ADD AIRWING

Use the ADD AIRWING pop-up option to automatically add PIF nickname records for all standard aircraft types from a particular aircraft carrier.

Choose ADD AIRWING to open the ADD AIRWING window (Figure 11.23-29).

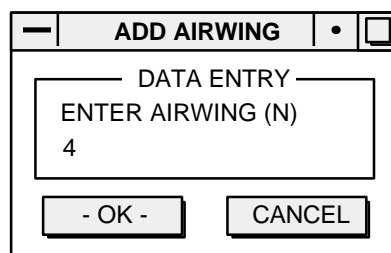


Figure 11.23-29 Add Airwing Window

1. Enter the first digit of the standard PIF code range for the airwing.
2. Click OK to automatically add the PIF nickname records for all standard aircraft types from the airwing chosen to the PIF nickname list. Or, click CANCEL to discard the action. Clicking either OK or CANCEL returns to the IFF-2 NICKNAME window.
3. If OK was clicked, the PIF nickname records for all standard aircraft types are listed in the IFF-2 NICKNAME window.
4. Airwing PIF nickname records shown in the IFF-2 NICKNAMES window are not permanently saved until OK has been clicked from the this window.

11.23.13 DI NICKNAMES

Use the DI NICKNAMES option to assign and maintain a list of Discrete Identifier (DI) numbers and their corresponding nicknames.

About the DI Nicknames option

- Nicknames quickly identify the type of craft reported from a Link report. This option is *for Link tracks only* and has no effect on other track types.

- If a Link track enters the system with a DI number that matches a number in the DI nickname table, the nickname in the table is assigned to the SHORT NAME field for the track.
- Tracks are often plotted based on the SHORT NAME field; however, if a DI nickname exists, it will be displayed.
- If there is no DI nickname, the NTDS track number will be displayed.
- DI nicknames are often more meaningful than the NTDS track number.

Note If a track contains a MODE 2 IFF value that matches a value in the PIF NICKNAMES table *and* a DI value that matches a value in the DI NICKNAMES table, the PIF NICKNAME will take precedence and will appear in the SHORT NAME field.

Select the DI NICKNAMES option from the TRACK TABLES cascading menu to open the DI NICKNAME window (Figure 11.23-30).

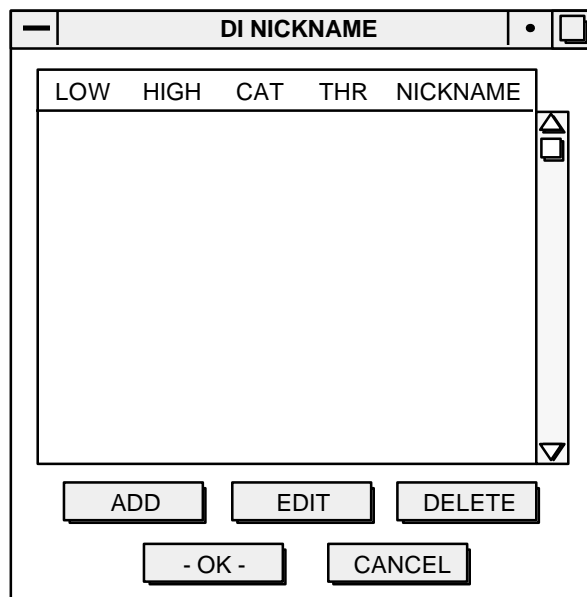


Figure 11.23-30 DI Nickname Window

DI NICKNAME Window Buttons

ADD—a DI nickname record. Described in *Add DI Nickname*.

EDIT—a DI nickname record.

1. Select the DI nickname record line from the DI NICKNAME window.

2. Click EDIT to open the EDIT DI NICKNAME window—which is functionally equivalent to the ADD DI NICKNAME window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the DI NICKNAME window.

DELETE—a DI nickname record.

1. Select the DI nickname record (or multiple records) from the DI NICKNAMES window.
2. Click DELETE and the record or records are deleted.

OK—save changes to DI nickname records. New/changed data shown in the DI NICKNAME window is not permanently saved until OK has been clicked from this window.

CANCEL—discard all changes and exit the DI NICKNAMES option.

11.23.13.1 Add DI Nickname

Click ADD to open the ADD DI NICKNAME window (Figure 11.23-31).

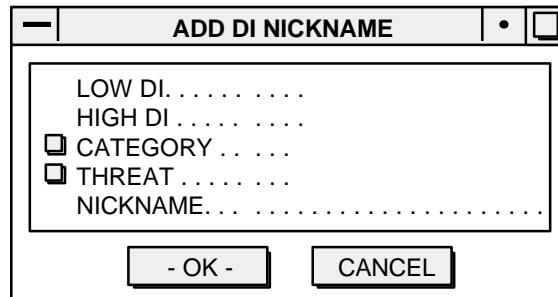


Figure 11.23-31 Add DI Nickname Window

Use the following fields in the ADD DI NICKNAME window to enter new data:

LOW DI

Number on the low end of a range of DI numbers.

HIGH DI

Number on the high end of a range of DI numbers.

CATEGORY

Category code for the DI range.

Click the list box in front of CATEGORY to show category codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

THREAT

Threat code for the DI range.

Click the list box in front of THREAT to show category codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

NICKNAME

DI nickname.

Only one nickname can be entered for the same DI number. If more than one nickname is entered, a WARNING window appears.

Click OK to accept the entries, or click CANCEL to discard them. Clicking either button returns to the DI NICKNAME window.

11.23.13.2 DI Nickname Pop-Up Menu

Options available on the DI NICKNAME pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.14 SHIP SYNONYMS

Use the SHIP SYNONYMS option to maintain a list of *possible* reported names for ships—along with their preferred names—as they should appear on the tactical display.

How the SHIP SYNONYMS option works

- The synonym table provides a way to correlate update and position reports for a ship that has been reported by a name other than its proper reporting name, as outlined and designated in the STAR (Standard Attribute Reference Manual).
 - For example, the track of a certain ship is plotted as “STANLEY WH,” but reports for the ship might come in as “USS STANLEY,” “STANLY,” “WILLIAM H STANLEY,” “WHS,” and “USS WILLIAM H. STANLEY.”
 - To ensure the ship always appears on the tactical display as “STANLEY WH,” enter all reported names as synonyms to “STANLEY WH” with this option.

Select the SHIP SYNONYMS option from the TRACK TABLES cascading menu to open the SYNONYM TABLE window (Figure 11.23-32).

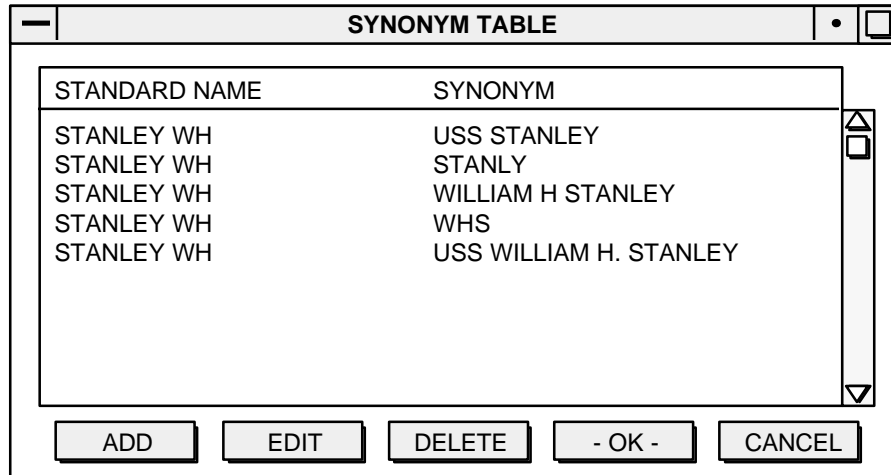


Figure 11.23-32 Synonym Table Window

SYNONYM TABLE Window Buttons

ADD—a ship synonym. Described in *Add Ship Synonym*.

EDIT—a ship synonym record.

1. Select the ship synonym record from the SYNONYM TABLE window.
2. Click EDIT to open the EDIT SYNONYM window—which is functionally equivalent to the ADD SYNONYM window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the SYNONYM TABLE window.

DELETE—a ship synonym record.

Select the ship synonym record (or multiple records) from the SYNONYM TABLE window.

Click DELETE. The record or records are deleted.

OK—save changes to ship synonym records. New/changed data in the SYNONYM TABLE window is not permanently saved until OK is clicked from this window.

CANCEL—discard changes and exit the option.

11.23.14.1 Add Ship Synonym

Click ADD to open the ADD SYNONYM window (Figure 11.23-33).

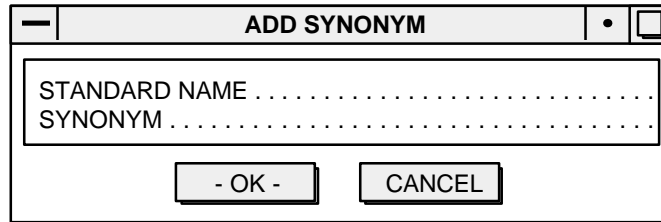


Figure 11.23-33 Add Synonym Window

Use the following fields in the ADD SYNONYM window to enter new data:

STANDARD NAME

Enter the ship's name as is it plotted on the tactical display.

SYNONYM

Synonym to assign to the standard name.

More than one synonym can be entered for the same standard name on separate lines, but only one standard name can be entered for the same synonym.

If a different standard name is entered for a synonym already in the list a warning appears: "Identical Synonym Entry For Different Standard Name." If this window displays, click OK to continue.

Click OK from the ADD SYNONYM window to accept entries, or click CANCEL to discard them. Clicking either button returns to the SYNONYM TABLE window.

11.23.14.2 SHIP SYNONYM Pop-Up Menu

Options available on the SHIP SYNONYM pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.15 SOURCE XREF TABLE

Use the SOURCE XREF TABLE option to view and modify a table displaying source indicators.

How the SOURCE XREF TABLE option works

- When a message enters UB, this table is checked for a match between the Command sending the message and a Command listed in the table.
 - If a match is found, the XREF code in the table for the matching Command is assigned to the message.

- This XREF code is shown in many UB windows to identify the source of messages.
- The XREF code is also used as a message filter in FOTC Participant mode.
 - Messages arriving from the FOTC controller contain the code XX.
 - If a message that would create a new track arrives from somewhere other than the FOTC controller, it will normally be filtered out and not accepted into the track database.
 - An exception to this is if the message comes from a source that has been assigned an XREF code *other than* the letter X. Entries in the SOURCE XREF table that do not begin with “X” seem to have no effect.
 - Those that begin with the single letter “X” (for example XJ) function the same as XX codes.

Select the SOURCE XREF TABLE option from the TRACK TABLES cascading menu to open the XREF TABLE window (Figure 11.23-34).

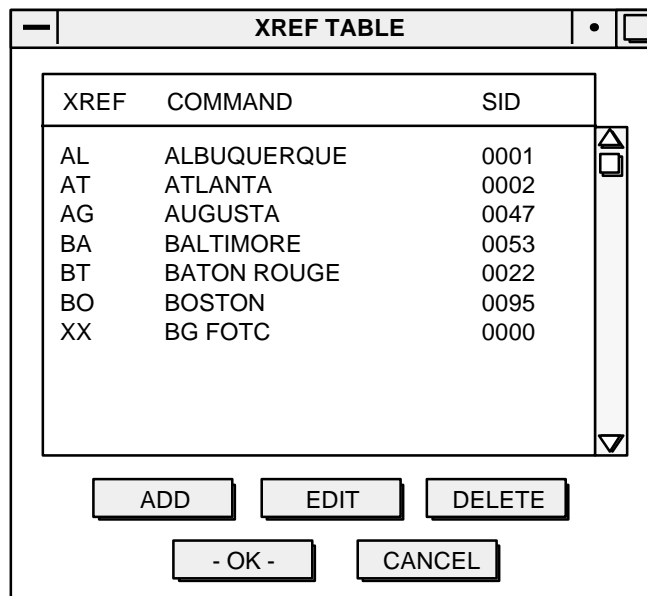


Figure 11.23-34 XREF Table Window

XREF TABLE Window Buttons

ADD—a new source indicator cross-reference record. Described in *Add Cross Reference Record*.

EDIT—a source indicator cross-reference record.

1. Select an entry from the list.
2. Click EDIT from the XREF TABLE window to open the EDIT XREF window—which is functionally equivalent to the ADD XREF window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the XREF TABLE window.
4. Changes appear in the XREF TABLE window, but they are not permanently saved until OK is clicked from this window.

DELETE—a source indicator cross-reference record.

1. Select the source indicator record (or multiple records) from the XREF TABLE window.
2. Click OK. The record or records are deleted.

OK—save changes to source indicator cross reference records. New/changed data in the XREF TABLE window is not permanently saved until OK is clicked from this window.

CANCEL—discard changes and exit the option.

11.23.15.1 Add Cross Reference Record

Click ADD to open the ADD XREF window (Figure 11.23-35).

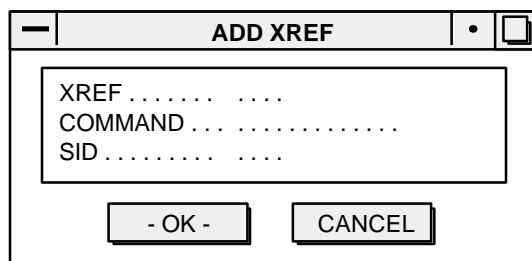


Figure 11.23-35 Add XREF Window

Use the following fields in the ADD XREF window to enter new data:

XREF

Cross reference code.

COMMAND

Cross reference command.

SID

Subscriber ID (SID).

Click OK to accept entries, or click CANCEL to discard them. Clicking either button returns to the XREF TABLE window.

Notes about XREF Setup for FOTC Participant Mode:

Entries in the XREF table are very important in determining whether incoming track reports are added to the track database.

- The FOTC Controller should always be assigned an XREF code of XX. Messages assigned an XREF code of XX will be accepted into the system when in FOTC Participant mode.
- To accept messages from other sources, in addition to the FOTC Controller, those sources must be assigned an XREF code beginning with the letter X. For example, to accept messages from the POST Command, assign the POST Command an XREF code of XP.
- The SID field in the XREF table is used as a secondary check.
 - If an incoming message has a matching Command and SID with an entry in the XREF table, it is accepted into the system.
 - If the Command matches but the SID does not match, the message is not accepted.
 - To ignore this secondary check, set the SID field in the XREF table to 0000, and this check will not take place.
- Problems commonly occur when the spelling of the Command in the XREF table does not match the Command spelling in the incoming message. If messages are not received in a timely manner, check the spelling of the Command in the XREF table.

11.23.15.2 SOURCE XREF TABLE Pop-Up Menu

Options available on the SOURCE XREF TABLE pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.16 FLAG-THREAT TABLE

Use the FLAG-THREAT TABLE option to maintain a table of flag codes and threat types for all countries.

Select FLAG-THREAT TABLE from the TRACK TABLES cascading menu to open the FLAG THREAT window (Figure 11.23-36).

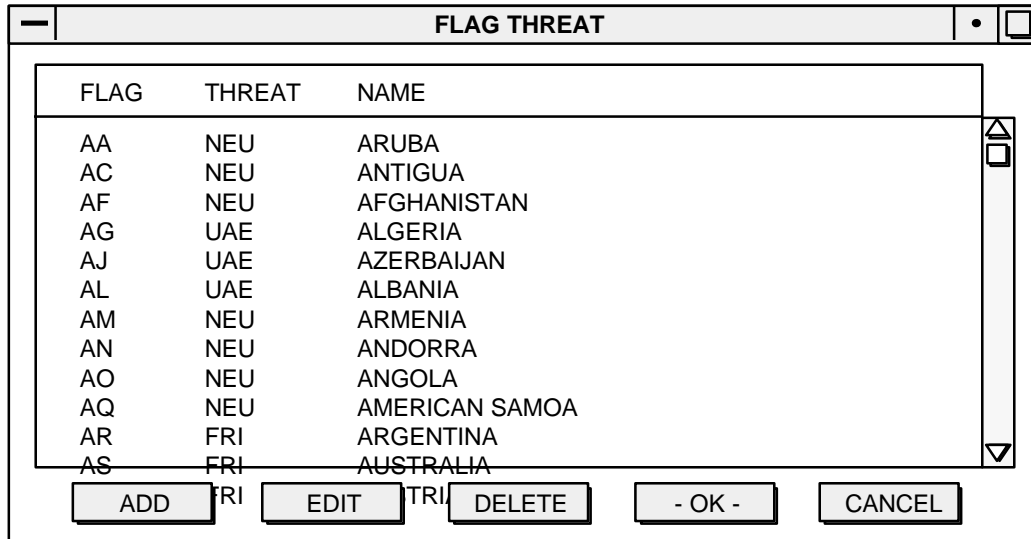


Figure 11.23-36 Flag Threat Window

FLAG THREAT Window Buttons

ADD—a flag threat record. Described in *Add Flag Threat Record*.

EDIT—a flag threat record.

1. Select the record from the FLAG THREAT window.
2. Click EDIT to open the EDIT FLAG THREAT window—which is functionally equivalent to the ADD FLAG THREAT window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the FLAG THREAT window.
4. Changes appear in the FLAG THREAT window, but are not permanently saved until OK is clicked from the FLAG THREAT window.

DELETE—a flag threat record.

1. Select the flag threat record (or multiple records) from the FLAG THREAT window.
2. Click DELETE. The record or records are deleted.

Note: Do not delete all the entries from the table, as doing this will cause major problems and force a reinstall of the UB software.

OK—save changes to flag threat records. New/changed data in the FLAG THREAT window is not permanently saved until OK is clicked from this window.

CANCEL—discard changes and exit the option.

11.23.16.1 Add Flag Threat Record

Click ADD to open the ADD FLAG THREAT window (Figure 11.23-37).

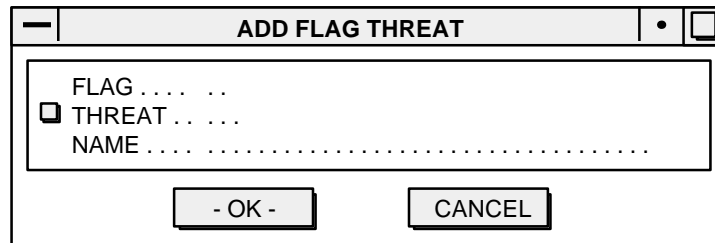


Figure 11.23-37 Add Flag Threat Window

Use the following fields in the ADD FLAG THREAT window to enter new data:

FLAG

Two-character flag code for the country.

THREAT

Threat code for the country.

Click the list box in front of THREAT to show threat codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

NAME

Country name.

Click OK to accept entries, or click CANCEL to ignore them. Clicking either button returns to the FLAG THREAT window.

11.23.16.2 FLAG THREAT Pop-Up Menu

Options available on the FLAG THREAT pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations* .

11.23.17 TYPE-CATEGORY TABLE

Use the TYPE-CATEGORY TABLE option to maintain a table of unit type codes and categories for all unit types.

Select the TYPE-CATEGORY TABLE option from the TRACK TABLES cascading menu to open the UNIT TYPES window (Figure 11.23-38).

The screenshot shows a window titled "UNIT TYPES" with a table containing the following data:

TYPE	CAT	REMARKS
ABU	NAV	BOUY TENDER
ABUD	NAV	BOUY TENDER, HEAVY LIFT
ABUL	NAV	BOUY TENDER, SMALL
AD	NAV	DESTROYER TENDER
ADD	NAV	NAV DESTROYER TENDER
ADG	NAV	DEGAUSSING SHIP
ADS	NAV	STORES ISSUE SHIP
AE	NAV	AMMUNITION SHIP
AEL	NAV	SMALL AMMUNITION SHIP
AEM	NAV	MISSILE SUPPORT SHIP
AET	NAV	AMMUNITION TRANSPORT

Below the table are five buttons: ADD, EDIT, DELETE, - OK -, and CANCEL.

Figure 11.23-38 Unit Types Window

UNIT TYPES Window Buttons

ADD—a new unit type record. Described in *Add Unit Type Record*.

EDIT—a unit type record.

1. Select the unit type record from the UNIT TYPES window.
2. Click EDIT to open the EDIT UNIT TYPE window—which is functionally equivalent to the ADD UNIT TYPE window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the UNIT TYPES window.
4. Changes appear in the UNIT TYPES window, but are not permanently saved until OK is clicked from this window.

DELETE—a unit type record.

1. Select the unit type record (or multiple records) from the UNIT TYPES window.
2. Click DELETE. The record or records are deleted.

OK—save changes to unit type records. New/changed data appears in the UNIT TYPES window, but is not permanently saved until OK is clicked from this window.

CANCEL—discard changes and exit the option.

11.23.17.1 Add Unit Type Record

Click ADD to open the ADD UNIT TYPE window (Figure 11.23-39).

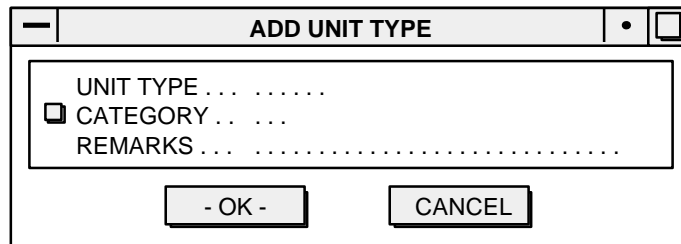


Figure 11.23-39 Add Ship Type Window

Use the following fields in the ADD UNIT TYPE window to enter new data:

UNIT TYPE

Unit type code.

CATEGORY

Category code.

Click the list box in front of CATEGORY to show category codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

REMARKS

Full name of the unit type.

Click OK to accept entries, or click CANCEL to discard them. Clicking either button returns to the UNIT TYPES window.

11.23.17.2 UNIT TYPES Pop-Up Menu

Options available on the UNIT TYPES pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.18 SHIP CLASS TABLE

Use the SHIP CLASS TABLE option to maintain a table of ship class codes and categories for all ship types.

- This table is shown as a list of available choices for the CLASS field in the EDIT window for tracks.

Select SHIP CLASS TABLE from the TRACK TABLES cascading menu to open the SHIP CLASS window (Figure 11.23-40).

CLASS	CAT	REMARKS
37.5 METER	NAV	PGG
ABUKUMA	NAV	DE
ADAMS CF	NAV	DDG
AGOSTA	SUB	SS
AGUIRRE	NAV	CL
AKULA	SUB	SSN
ALMADINA	NAV	FFG
ALFA	NAV	SSN

ADD EDIT DELETE - OK - CANCEL

Figure 11.23-40 Ship Class Window

SHIP CLASS Window Buttons

ADD—a ship class record. Described in *Add Ship Class Record*.

EDIT—a ship class record.

1. Select the ship class record from the SHIP CLASS window.
2. Click EDIT to open the EDIT SHIP CLASS window—which is functionally equivalent to the ADD SHIP CLASS window.
3. Click OK to accept changes, or click CANCEL to discard them. Clicking either button returns to the SHIP CLASS window.
4. Changes appear in the SHIP CLASS window, but are not permanently saved until OK is clicked from this window.

DELETE—a ship class record.

1. Select the ship class record (or multiple records) from the SHIP CLASS window.
2. Click DELETE. The record or records are deleted.

OK—save changes to unit type records. New/changed data appears in the SHIP CLASS window, but is not permanently saved until OK is clicked from this window.

CANCEL—discard changes and exit the option.

11.23.18.1 Add Ship Class Record

Click ADD to open the ADD SHIP CLASS window (Figure 11.23-41).

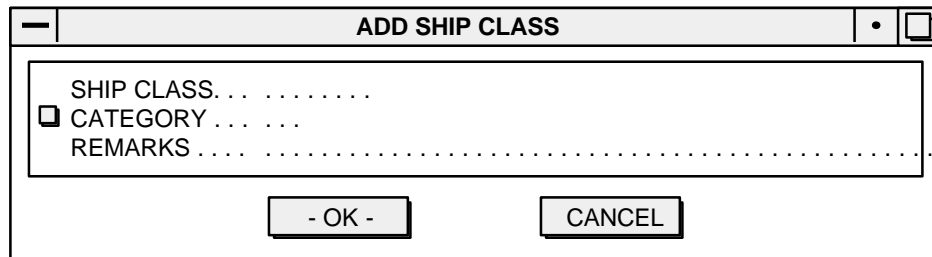


Figure 11.23-41 Add Ship Class Window

Use the following fields in the ADD SHIP CLASS window to enter new data:

SHIP CLASS

Name of the ship class.

CATEGORY

Appropriate category code for the track from the following list:

Code Meaning

AIR Aircraft

NAV Naval

SUB Submarine

MER Merchant

FSH Fishing Vessel

LND Land Unit

UNK Unknown

Click the list box in front of CATEGORY to display a list of category codes. Highlight the code from the list and click the left trackball button to automatically enter the code into this field.

REMARKS

Additional information to further identify the ship class.

Click OK to accept entries or click CANCEL to discard them. Clicking either button returns to the SHIP CLASS window.

11.23.18.2 SHIP CLASS Pop-Up Menu

Options available on the SHIP CLASS pop-up menu (ADD, EDIT, DELETE, OK, SELECT ALL, UNSELECT ALL, ARCHIVE, RESTORE, PRINT, and CANCEL), perform as described in *Summary of Common Operations*.

11.23.19 SENSOR TABLE

Use the SENSOR TABLE option to maintain a table of sensor codes.

- These codes identify the type of sensor used to detect a track for a report.
- This table is shown as a list of available choices for the SENSOR field when entering a position report for tracks.

Select SENSOR TABLE from the TRACK TABLES cascading menu to open the SENSOR TABLE window (Figure 11.23-42).

SENSOR	SMJR	SMNR	PC	REMARKS
ACSONO	0004.0	0004.0	090	ACTIVE SONOBUOY
ASQ10	0004.0	0004.0	090	ASQ-10
ASQ81	0004.0	0004.0	090	ASQ-81
ASQS13	0004.0	0004.0	090	ASQS-13
BATHY	0004.0	0004.0	090	BATHYTHERMOGRAPH
BEDF	0004.0	0004.0	090	BULLSEYE HFDF DATA
CABUOY	0004.0	0004.0	090	CALIBRATION BUOY
CASS	0004.0	0004.0	090	COMMAND ACTIVATED SONOBUOY SYSTEM
CATAS	0004.0	0004.0	090	CRITICAL ANGLE TOWED ARRAY SONAR
CDF	0004.0	0004.0	090	COMBAT DIRECTION FINDING

Below the table are three buttons: EDIT, - OK -, and CANCEL.

Figure 11.23-42 Sensor Table Window

SENSOR TABLE Window Buttons

EDIT—a sensor record. Described in *Edit Sensor Record*.

OK—save changes to sensor records. New/changed data appears in the SENSOR TABLE window, but is not permanently saved until OK is clicked from this window.

CANCEL—discard changes and exit the option.

11.23.19.1 Edit Sensor Record

Select a record from the SENSOR TABLE scroll list and click EDIT to open the EDIT SENSOR window (Figure 11.23-43).